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Synaptosomal-assoc	AAU00260	22	206	99.4	1042	8
Synaptosomal-assoc	AAU00259	22	206	99.4	1042	7
Synaptosomal-assoc	AAU02640	22	206	99.5	1043	6
SNARE homologue, s	AAU00253	22	206	100.0	1048	v
Synaptosomal-assoc	AAU00246	22	206	100.0	1048	4
Mouse synaptosomal	AAW43426	19	206	100.0	1048	ω
Mouse SNAP-25 poly	AAW79198	19	206	100.0	1048	2
Synaptosomal assoc	AAW30103	18	206	100.0	1048	_
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ALIGNMENTS

Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle; excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spasticity reduction; synaptosomal associated protein; SNAP-25. AAW30103 standard; peptide; 206 AA. WO9734620-A1 Homo sapiens. Synaptosomal associated protein. 06-APR-1998 AAW30103; (first entry)

Montal (REGC) UNIV CALIFORNIA. 18-MAR-1996; 18-MAR-1997; 25-SEP-1997. 96US-0013599 97WO-US04393

Excitation-secretory uncoupling peptide(s) for inhibiting muscle neuro:transmitter release - used particularly for treating muscle

WPI; 1997-479986/44.

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RESULT 2
AAW79198
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of 10 microm, especially 0.25 microm, or less. (1) are used, as a replacement for Clostridium toxin, to inhibit release of neurotransmitters from synaptic vesicles, specifically for reducing muscle spasticity. Also (1) may be labelled to allow in vivo imaging of intracellular distribution of (1). Compounds for delivering the drug to neural cells provide targeted drug delivery, e.g. of substance P to brain tumours for induction of apoptosis. Unlike the neurotoxins, (1) are not toxic or immunogenic and are more readily available. Their therapeutic effect lasts for several days or weeks, so lower doses or less frequent treatments are required.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          spasticity,
                                                                                                                                                                                                                                                                                                                                                                                                               Hrs-2 polypeptide; ATP-preferring nucleotidase; SNAP-25; vesicle dock calcium-regulated secretion; secretory vesicle; secretory process; but neurotransmitter release; presynaptic membrane; CNS disorder; depress parkinson's disease; endocrine system; hormonal imbalance; cell divis thought disorder; schizophrenia; degenerative disorder; anaesthesia;
                                                                                                                                                                                                                                                                                                                      immune system; antigen processing; immunomodulator; viral processing; central nervous system; vesicular release; affective disorder; human; anti-tumour application; membrane trafficking regulation; mouse.
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      26-FEB-1997;
                                                                                                                                  03-SEP-1998
                                                                                                                                                                                             WO9838210-A2
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                                                                    26-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
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Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       secretory process; brain; CNS disorder; depression;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SNAP-25; vesicle docking; secretory process; brain;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated Hrs-2 nucleotidase - used in assays to iden
compounds capable of modulating calcium-regulatory secre
secretory vesicles, such as in neurotransmitter release
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N-PSDB; AAV57558.
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                                                                                                                                                                                   AAW43426 standard; Protein;
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Pred. No. 6.7e-91;
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Binding domain; m neurotransmitter;

mouse; syntaxin; synaptosomal-associated protein; CNS;
r; presynaptic membrane; central nervous system; tumour

Mouse synaptosomal-associated protein-25.

27-APR-1998

(first entry)

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Result
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Human SNAP25 (amin
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Amino acids 187-20
Human SNAP25 (amin
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AAY44059	AAY44052	AAY44050	AAY44047	AA015162	AAY44063	AAY44043	AAY44041	AAY44038	AAY44026	AAY44024	AAY44022	AAY44074	AAY44073	AAY44072	AAY44071	AAY44027	AAY44036	AAY44037	AAU02640	AAU02638	AAU00253	AAU00252	AAU00246	AAW43426	AAW79198	AAW30103	AA015165	AAB15584	AAR86823	AAW30097	AAW30099	AAW30100	AAB15586	ABG69065
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ALIGNMENTS

RESULT 1
AAY44061

Human SNAP25 (amino acids 187-203) analogue #40

18-JAN-2000 (first entry)

AAY44061;

AAY44061 standard; peptide; 12 AA

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US5965699 A 1
   Quantitation of type A botulinum toxin
                    WPI; 1999-579939/49.
                                                                                                                                             Enzymatic assay; quantitation; type A botulinum neurotoxin; proteolysis; fluorescamine; detection; human; synaptosomal protein; SNAP25; hydrolysis; amino group.
                                  Bostian KA,
                                                                06-NOV-1996;
                                                                               06-NOV-1996;
                                                                                                                           Synthetic.
                                                (USSA ) US SEC OF ARMY.
                                                                                             12-OCT-1999
                                                                                                                                  Homo sapiens
                                  Schmidt
                                                                96US-0743894.
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Disclosure; Column

9-10; 28pp; English.

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RESULT 2
AAY44058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  type A botulinum toxin, by determining the proteolytic activity of contuinum toxin, by determining the proteolytic activity of toxin A has been shown to cleave the synaptosomal neurotransmitter continuous (e.g. AAY44022-Y44075) of the SNAP25 between residues 197-198. The method comprises adding contuinum toxin A so that hydrolysis of the SNAP25 peptide (AAY44021, contuinum toxin A so that hydrolysis of the peptide is initiated, then containing the amount of hydrolysis at each time points; and contuinum toxin a so that hydrolysis at each time point; and contuining the amount of hydrolysis at each time point; and contuining the amount of botulinum toxin A present in the sample is determined by comparing measurements with the amount of label produced from a known concentration of toxin measured under similar conditions. The method is useful for the quantitation of type A botulinum toxin.
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Best Local Similarity
The invention relates to an enzymatic assay for the quantitation of type A botulinum toxin, by determining the proteolytic activity of botulinum neurotoxin type A using fluorescamine detection. Botulinum toxin A has been shown to cleave the synaptosomal neurotransmitter peptide SNAP25 between residues 197-198. The method comprises adding an analogue (e.g. AAY44022-Y44076) of the SNAP25 peptide (AAY44021, amino acids 187-203 of human SNAP25) to a sample containing the botulinum toxin A so that hydrolysis of the peptide is initiated, then stopping hydrolysis of the peptide at different time points; and measuring the amount of hydrolysis at each time point by combining with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Enzymatic assay; quantitation; type A botulinum neurotoxin; proteolysis;
fluorescamine; detection; human; synaptosomal protein; SNAP25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY44058 standard; peptide; 15
                                                                                                                                                                                                                      Quantitation of type A botulinum toxin
                                                                                                                                                                                                                                                        WPI; 1999-579939/49
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                                                                                                                                                                                                                                                                                       Schmidt
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Pred. No.
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Length 16

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                                               The invention relates to an enzymatic assay for the quantitation of CC type A botulinum toxin, by determining the proteolytic activity of CC botulinum neurotoxin type A using fluorescamine detection. Botulinum CC toxin A has been shown to cleave the synaptosomal neurotransmitter peptide SNAP25 between residues 197-198. The method comprises adding CC anino acids 187-203 of human SNAP25) to a sample containing the CC botulinum toxin A so that hydrolysis of the peptide is initiated, then CC stopping hydrolysis of the peptide at different time points; and CC measuring the amount of hydrolysis at each time point by combining with a CC label capable of detecting free amino groups resulting from the CC label capable of detecting free amino groups resulting the sample is CC from a known concentration of toxin measured under similar conditions. The method is useful for the quantitation of type A botulinum toxin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY44069 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Enzymatic assay; quantitation; type A botulinum neurotoxin; proteolysis;
fluorescamine; detection; human; synaptosomal protein; SNAP25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Quantitation of type A botulinum toxin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-NOV-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human SNAP25 (amino acids 187-203) analogue [1-16].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-579939/49
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nes 8; Conserv
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EANQRATK 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Column 13-14; 28pp;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 >
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RESULT 4
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ID AAY44021
AC AAY4

RESULT 5
AAY44039
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         botulinum neurotoxin type A using fluorescamine detection. The method comprises adding an analogue (e.g. AAY4402-Y44076) of this peptide (which represents amino acids 187-203 of the human synaptosomal protein SNAP25) to a sample containing the botulinum toxin A so that hydrolysis of the peptide is initiated, then stopping hydrolysis of the peptide at different time points; and measuring the amount of hydrolysis at each time point by combining with a label capable of detecting free amino groups resulting from the hydrolysis. The amount of botulinum toxin A present in the sample is determined by comparing measurements with the
                             18-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amount of label produced from a known concentration of toxin measured under similar conditions. The method is useful for the quantitation o
                                                                                   AAY44039;
                                                                                                                                           AAY44039 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Column 4; 28pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-579939/49
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                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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RESULT 6
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                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                       Query Match
Best Local :
                         hydrolysis; amino group.
                                    Enzymatic assay; quantitation; type A botulinum neurotoxin; proteolysis; fluorescamine; detection; human; synaptosomal protein; SNAP25;
                                                                                Human SNAP25 (amino acids 187-203) analogue M16X.
                                                                                                                18-JAN-2000
                                                                                                                                             AAY44044;
                                                                                                                                                                        AAY44044 standard; peptide; 17 AA
                                                                                                                                                                                                                                                                                                                                                                   Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Quantitation of type A botulinum toxin
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fluorescamine; detection; human; synaptosomal protein; (NAP25;
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Pred. No.
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Homo sapiens

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
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                                                                                                                                                                 Synthetic.
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fluorescamine; detection; human; synaptosomal protein; SNAP25;
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8; Conserv
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                   The invention relates to an enzymatic assay for the quantitation of type A botulinum toxin, by determining the proteolytic activity of botulinum neurotoxin type A using fluorescamine detection. Botulinum toxin A has been shown to cleave the synaptosomal neurotransmitter peptide SNAP25 between residues 197-198. The method comprises adding an analogue (e.g. AAY44022-Y44076) of the SNAP25 peptide (AAY44021, amino acids 187-203 of human SNAP25) to a sample containing the botulinum toxin A so that hydrolysis of the peptide is initiated, the
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   stopping hydrolysis of the
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   peptide at different time points;
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                         CC The invention relates to an enzymatic assay for the quantitation of CC type A botulinum toxin, by determining the proteolytic activity of botulinum neurotoxin type A using fluorescamine detect:on. Botulinum CC toxin A has been shown to cleave the synaptosomal neurotransmitter CC peptide SNAP25 between residues 197-198. The method comprises adding CC an analogue (e.g. AAY44022-Y44076) of the SNAP25 peptide (AAY44021, CC amino acids 187-203 of human SNAP25) to a sample conta.ning the CC stopping hydrolysis of the peptide at different time points; and CC stopping hydrolysis of the peptide at different time points; and CC measuring the amount of hydrolysis at each time point by combining with a CC label capable of detecting free amino groups resulting from the CC hydrolysis. The amount of botulinum toxin A present in the sample is CC determined by comparing measurements with the amount of label produced CC from a known concentration of toxin measured under similar conditions. CC The method is useful for the quantitation of type A bo:ulinum toxin.
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Best Local
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 Sequence
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                                                                                                                                                                                                                                                                                              Disclosure; Column 15; 28pp; English.
                                                                                                                                                                                                                                                                                                                             Quantitation of type A botulinum toxin
                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-579939/49
                                                                                                                                                                                                                                                                                                                                                                                                 Bostian KA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Enzymatic assay; quantitation; type A botulinum neurotoxin; proteolysis; fluorescamine; detection; human; synaptosomal protein; SNAP25;
                                                                                                                                                                                                                                                                                                                                                                                                                                (USSA ) US SEC OF ARMY.
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Pred. No.
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0.097;
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Query Match Best Local Similarity

100.0%;

Score Pred.

39;

DB 20; 0.097;

Lengti 17

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RESULT 11
ABG69065
ID ABG69
XX ABG69
XX ABG69
XX ABG69
XX O7-OC
XX Human
XX Botul
KW Spast
KW Lower
KW Lower
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FD 10-M
VXX 10-M
PD 10-M
PD 10-M
PD 10-M
PD 06-N
XX W0200
XX NOVE
PR 20-JI
PR 09-AI
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Matches 8; Conser
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                                                                                                                                                                                                                                                                                                                                                     The invention relates to a nucleic acid molecule encoding a botulinum neurotoxin light chain (BoNT LC) serotype A, where the DNA has a sequence that is expressible in a host organism other than Clostridium, or has a total A+T content that is less than about 70% The BoNT LC protein is useful in vaccination against botulism, for eliciting protective immunity in a mammal, for treating dystonias, spaticity, pain, ocular motility, facial dyskinesias, stiff-person syndrome, bladder dysfunction, segmental myoclonus, hyperkinetic disorders, cosmetic treatment of facial wrinkles, conditions characterised by hyperactivity of the lower motor neuron, and to control autonomic nerve function or tiproe-walking due to stiff muscles common in children with cerebral palsy. The sequences are also useful for screening for botulinum neurotoxin inhibitors. This sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-NOV-2000;
20-JUL-2001;
09-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel nucleic acid molecule encoding botulinum neurotoxin light chain serotype A, useful for producing the neurotoxin for vaccination against botulism, comprises sequence expressible in host other than Clostridium
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                                                                                                                                                                                                                                                                                                                                   represents a human polypeptide C-terminal fragment, used in the scope of
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EANQRATK 15
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; 2001US-0910186.
; 2001US-311966P.
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.0%; Pred. No. 0.0
0; Mismatches
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NEUI
KW NEUI
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Best Local
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                                                                                                                                                                                                                                                                                                                                            The invention relates to new peptides comprising 3-30 contiguous amino acids from the N-terminus of the protein SNAP-25 (synaptosomal-associated protein 25). The peptides AAB15581-B1586 represent examples of the peptides of the invention. The peptides have neuronal exocytosis inhibitory activity and are used for treatment of factal wrinkles and asymmetry and pathological neuronal exocytosis-mediated pathological disorders and alterations manifested e.g. by spasms and neurological and neurodegenerative disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Blanes Mira MC, Llobregat Hernandez MM, Gil Tebar AI;
Fernandez Ballester GJ, Planell Cases RM, Ferrer Montiel AV;
Viniegra Bover S, Gutierrez Perez LM, Carbonell Castell T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dermatological; neuroprotective; relaxant; neuronal exocytosis modulator; SNAP-25; synaptosomal-associated protein 25; facial wrinkle; asymmetry;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human SNAP-25 N-terminal peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 17; Page 34; 40pp; Spanish.
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                                                                                                                                                                                                                                                                                                                     Sequence
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 excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spasticity redu
                            Neurotransmitter secretion; inhibitor; neuronal cell; symaptic vesicle;
                                                       Neurotransmitter secretion inhibitor #4.
                                                                                   06-APR-1998
                                                                                                              AAW30100
                                                                                                                                         AAW30100 standard;
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nes 8; Conserv
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                                                                                                                                         peptide;
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Pred. No. 0.11;
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RESULT 14
AAW30099
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XX AAW30
AC AAW30
XX AW30
DT 06-AF
CXX Neurc
XXX Neurc
KW Neurc
KW excit
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                                                                                                                                                                                               Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle; excitation secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spasticity reduction; synaptosomal associated protein; SNAP-25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         synaptosomal associated protein (SNAP-25), and is a inhibitory agent of the invention. The agents of the invention inhibit secretion of neurotransmitter from neuronal cells and is an excitation-secretory uncoupling peptide (I) of at least 20 amino acids (aa) all of which correspond substantially to any one of AAW30097-W30102, or more generally any (I) that inhibits 50% of catecholamine secretion from boving chromaffin cells at a concentration of 10 microM, especially 0.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Excitation-secretory uncoupling peptide(s) for inhibiting neuro:transmitter release - used particularly for treating muscle spasticity, and for delivering drugs specifically to neural cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 14; Page 32; 61pp; English.
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                                                                                                                                Homo sapiens
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les 8; Conserv
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Pred. No. 0.12;
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                 Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle; excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spassicity reduction; synaptosomal associated protein; SNAP-25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence corresponds to residues 181-206 of the human 29 synaptosomal associated protein (SNAP-25), and is a inhibitor the invention. The agents of the invention inhibit secretion
                                                                                                                                                                                                                                                                                  WO9734620-A1
                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Neurotransmitter secretion inhibitor #1.
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8; Conser
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Best Local S
Matches 8
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| 25 EANQRATK 32
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SUMMARIES

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AAU02638	AAU00261	AAU00260	AAU00259	AAU02640	AAU00253	AAU00246	AAW43426	AAW79198	AAW30103	ID
Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	SNARE homologue, s	Synaptosomal-assoc	Mouse synaptosomal	Mouse SNAP-25 poly	Synaptosomal assoc	Description

Excitation-secretory uncoupling peptide(s) for inhibiring muscle neuro:transmitter release - used particularly for treating muscle

WPI; 1997-479986/44.

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270	247	247	247	49	714	546	513	64	70	129	82	86	106	106	116	116	213	211	211	212	206	199	198	200	201	202	203	206	206	206	206	206	206	206	
21	21	21	21	22	21	21	21	21	17	21	22	22	21	21	23	23	21	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	
AAG23784	AAG39336	AAG23785	AAG09027	AAM57386	AAG32994	AAG32995	AAG32996	AAG00764	AAR86823	AAB53705	AAB15581	AAB15584	AAG03826	AAG03825	AA015166	AA015165	AAB57140	AAU00251	ABG02947	ABB64447	AAU00252	AAU00263	AAU00255	AAU00264	AAU02637	AAU00265	AAU02636	AAU00258	AAU02639	AAU00256	AAU02171	AAU00266	AAU00257	AAU00262	
Arabidopsis thalia								-	SNAP-25 residues 1	Human colon cancer			Human secreted pro	Human secreted pro	Clostridial neurot	Clostridial neurot	Human prostate can	SNARE homologue, s	Novel human diagno	σ	SNARE homologue, s	Synaptosomal-assoc		Synaptosomal-assoc	•	Synaptosomal-assoc		<pre>synaptosomal-assoc</pre>							

ALIGNMENTS

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RESULT 1
AAW30103
Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle; excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle sparticity reduction; synaptosomal associated protein; SNAP-25.
                                                                                                   18-MAR-1997;
                                                                                                                      25-SEP-1997.
                                                                                                                                          WO9734620-A1
                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                            Synaptosomal associated protein.
                                                                                                                                                                                                                                                06-APR-1998
                                                                                                                                                                                                                                                                   AAW30103;
                                                                                                                                                                                                                                                                                    AAW30103 standard; peptide; 206 AA.
                                                             (REGC ) UNIV
                                                                                 18-MAR-1996;
                                                              CALIFORNIA.
                                                                                                                                                                                                                                              (first entry)
                                                                                 96US-0013599
                                                                                                   97WO-US04393
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ARESULT 2
AAW7918
ID AAW7
XX AAW7
XX 25-N
DT 25-N
DT 25-N
DE MOUS
XX Hrs-
KW Call
KW call
KW chhou
KW thou
KW immn
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This sequence represents the human 25 kD synaptosomal associated protein (SNAP-25), which is an inhibitory agent of the invention. The agents of the invention inhibit secretion of neurotransmitter from neuronal cells and is an excitation-secretory uncoupling peptide (I) of at least 20 amino acids (aa) all of which correspond substantially to any one of AAW30097-W30102, or more generally any (I) that inhibits 50% of catecholamine secretion from bovine chromaffin cells at a concentration of 10 microM, especially 0.25 microM, or less. (I) are used, as a replacement for Clostridium toxin, to inhibit release of muscle spasticity. Also (I) may be labelled to allow in vivo imaging of intracellular distribution of (I). Compounds for delivering the drug to neural cells provide targeted drug deliver, e.g., of substance P to brain tumours for induction of apoptosis. Unlike the neurotoxins, (I) are not toxic or immunogenic and are more readily available. Their therapeutic effect lasts for several days or weeks, so lower doses or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
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                                                                                                                                                                                                                                     Hrs-2 polypeptide: ATP-preferring nucleotidase; SNAP-25; vesicle docking; calcium-regulated secretion; secretory vesicle; secretory process; brain; neurotransmitter release; presynaptic membrane; CNS disorder; depression; parkinson's disease; endocrine system; hormonal imbalance; cell division; thought disorder; schizophrenia; degenerative disorder; anasthesia; rat;
                                                                                                                                                                                                        immune system; antigen processing; immunomodulator; viral processing; central nervous system; vesicular release; affective disorder; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW79198 standard; Protein;
 26-FEB-1997;
                                                                            03-SEP-1998
                                                                                                                                                                                                                                                                                                                                                       Mouse SNAP-25 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                           25-NOV-1998 (first entry)
                                    26-FEB-1998;
                                                                                                              WO9838210-A2
                                                                                                                                                                                       anti-tumour application; membrane trafficking regulation; mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VDEREQMAISGGFIRRVTNDARENEMDENLEQVSGIIGNLRHMALDMGNEIDTQNRQIDR 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               frequent treatments are required
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMEKADSNKTRIDEANQRATKMLGSG 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VDEREQMAISGGFIRRVTNDARENEMDENLEQVSGIIGNLRHMALDMGNEIDTQNRQIDR
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)6; Conservative
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   97US-0039159
                                        98WO-US03789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for delivering drugs specifically to neural cells
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Pred. No. 6.7
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              206
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.6.7e-91;
.....0;
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RESULT 3
AAW43426
ID AAW4
XX
AC AAW4
XZ
DT 27-A
XX
DE Mous
XX
KW Bind
KW neur

27-APR-1998

(first entry)

AAW43426 standard; Protein; 206

3

Binding domain; mouse; syntaxin; synaptosomal-associated protein; neurotransmitter; presynaptic membrane; central nervous system; tu

CNS;

Mouse synaptosomal-associated protein-25.

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121

VDEREQMAISGGFIRRYTNDARENEMDENLEQVSGIIGNLRHMALDMGNEIDTQNRQIDR 180

EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV

120

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61

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В

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                                                                                                                                                                                                                                                             cc polypeptide, in the presence and absence of a test compound. The effect cof the test compound on the extent of binding between the SNAP-25 and compound is identified as effective if its measured effect on the extent of binding is above a threshold cc if its measured effect on the extent of binding is above a threshold cc level. The products can be used for identifying drugs capable of cc affecting secretory processes, such as neurotransmitter release at the cc active zones of presynaptic membranes. Such drugs can be used for creating disorders or conditions of the central nervous system by cc selectively enhancing or inhibiting vesicular release in specific areas cof the brain, including affective disorders (e.g. depression), disorders cof thought (e.g. schizophrenia) and degenerative disorders (e.g. depression) considers (can be used therapeutically in other systems such as the endocrine consistent for treatment of hormonal imbalances, the immune system for concessing, as well as anti-tumour applications, such as regulation of membrane trafficking during rapid cell division.
                                                                                                                                               Query Match
Best Local S
Matches 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This represents a mouse SNAP-25 polypeptide, a component of the protein polypeptides thought to underlie vesicle docking and fusion. The invention provides rat and human Hrs-2 polypeptides which are ATP-preferring nucleotidase that associate with SNAP-25. For identifying a compound capable of modulating calcium-regulated secretion of secretory vesicles, a SNAP-25 polypeptide can be contacted with a Hrs-2 resister.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 16; Pages 42-44; 55pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated Hrs-2 nucleotidase - used in assays to identify compounds capable of modulating calcium-regulatory secretion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (STRD ) UNIV LELAND STANFORD JUNIOR
                                                                                                                                                                                                                               Sequence
                     61
                                                                                                                                                                    Local Similarity
                                                                                  1 MAEDADMRNELEEMQRRADQLADESLESTRRMLQLVEESKDAGIRTLVMLDEQGEQLERI 60
EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV 120
                                                              MAEDADMRNELEEMQRRADQLADESLESTRRMLQLVEESKDAGIRTLVMLDEQGEQLERI
                                                                                                                                                 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vesicles, such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scheller RH
                                                                                                                                                                                                                                 206
                                                                                                                                                 Conservative
                                                                                                                                                                                                                                 AA;
                                                                                                                                                                  100
                                                                                                                                                                    .08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     in neurotransmitter
                                                                                                                                                 0,
                                                                                                                                                 Score 1048;
Pred. No. 6.7
0; Mismatches
                                                                                                                                                                    6.7e-91
                                                                                                                                                                                            DB 19;
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                                                                                                                                                                                        Length 206;
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                                                                                                                                                             AAU00246
                                                                                                                                                                             RESULT 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This amino acid sequence represents the mouse synaptosomal-associated protein of 25 kD (SNAP-25). The invention relates to a method for identifying a compound capable of affecting the binding of a syntaxin-binding protein (SBP), e.g. SNAP-25, alpha-SNAP, n-secl or VAMP, to syntaxin. The method comprises measuring the effect of the test compound on the extent of binding between the SBP and the SBP-binding site on syntaxin. The method can be used for identifying drugs capable of inhibiting or stimulating neurotransmitter release at the active zones of presynaptic membranes, which may be useful for treating CNS disorders,
 synaptosomal-associated
               SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosi
                                                         Synaptosomal-associated protein,
                                                                                                                                                AAU00246 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              affective or psychotic disorders, neurodegenerative diseases, hormonal or immunological disorders or tumours.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Column 67-72; 57pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Screening assay for modulators of syntaxin binding - using peptide comprising binding site of syntaxin, for identifying drugs useful for treating CNS disorders, neuro-degenerative diseases, etc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scheller RH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-FEB-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                             MAEDADMRNELEEMQRRADQLADESLESTRRMLQLVEESKDAGIRTLVMLDEQGEQLERI 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1998-031743/03
                                                                                                                                                                                                                                                                                                VDEREQMAISGGFIRRVTNDARENEMDENLEQVSGIIGNLRHWALDMGNEIDTQNRQIDR 180
                                                                                                                                                                                                                                                                                                                                                                                                EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV 120
                                                                                                                                                                                                                                                                                                                                                       EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV 120
                                                                                                                                                                                                                        IMEKADSNKTRIDEANQRATKMLGSG
                                                                                                                                                                                                                                                     IMEKADSNKTRIDEANQRATKMLGSG
                                                                                                                                                                                                                                                                                 VDEREQMAISGGFIRRVTNDARENEMDENLEQVSGIIGNLRHMALDMGNEIDTQNRQIDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV01554.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  206 AA;
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                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95US-0393985
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                                                                                                                                                Protein;
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botulism;
| protein; m
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Pred. No. 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
; tetanus; SNARE-dependent exocytosis;
mutagenic; PCR primer; mouse;
                                                         SNAP25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6.7e-91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 19;
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Best Loc Matches Query Match

Local

tch 100.0%; al Similarity 100.0%; 206; Conservative (

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Score 1048; DB 22 Pred. No. 6.7e-91; ; Mismatches 0;

SlebnI Length 206;

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Gaps

0

60 60

61

61

EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNN2DGVVASQPARV EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNN 2DGVVASOPARV MAEDADMRNELEEMQRRADQLADESLESTRRMLQLVEESKDAGIRTLV.4LDEQGEQLERI

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The sequence represents the amino acid sequence of syniptosomal-
CC associated protein, SNAP25. The sequence was used to
CC create SNAP-25 double/single point mutants and C-terminal deletion
CC mutants used in a new method of treating a patient suffering from
CC poisoning or at risk of poisoning by a clostridial toxin, comprising
CC supplying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein)-
CC attachment protein receptor) to a cell of the patient, where the SNARE is
CC resistant to proteolysis by the toxin (toxin-resistant SNARE) and/or is
CC capable of inhibiting the toxin (toxin-inhibitory SNARE). The protein can
CC be used in a method of treating a patient in need of inhibition of SNARE
CC dependent exocytosis from a cell capable of performing SNARE dependent
CC exocytosis, comprises supplying a fragment, variant, fusion or derivative
CC of a SNARE or an inhibitory SNARE to the cell of the jatient. The toxin
CC resistant or toxin inhibitory SNARE to the cell of the jatient of the toxin
CC resistant or toxin inhibitory SNARE or a recombinant jolynucleotide
CC cariant, fusion or derivative of a SNARE or of an inhibitory SNARE, to by clostridial toxin, e.g. from botulism or tetanus. The fragment,
CC variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a
CC recombinant polynucleotide encoding either of these SNARE polypeptides
CC are useful in the manufacture of medicament for the treatment of a
CC patient in need of inhibition of SNARE-dependent exocytosis from a cell
CC taking the patient suffering from polyposis. The method of treatment
CC taking the patient suffering from the patient of treatment
CC taking the patient suffering from the patient of treatment
CC taking the patient suffering is the symptoms when most severe and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-ethylmaleimide-sensitive fusion protein; soluble NSF-attachment protein receptor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administaring a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dolly JO,
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-AUG-2000; 2000WO-GB03196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200118038-A2
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                                           the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O'Sullivan GA,
                                         patient out of critical state.
  206 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fig 8; 131pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0149993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197..198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "Peptide bond susceptible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Peptide bonds susceptible to clostridial neurotoxin"
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                                                                                      CC synaptosomal-associated membrane protein, hSNAP25b, used during analysis of SNAP-25. SNAP-25 mutants were used in a new method of treating a CC patient suffering from poisoning or at risk of poisoning by a clostridial ctoxin, comprising supplying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) to a cell of the patient. CC where the SNARE is resistant to proteolysis by the toxin (toxin-resistant CC SNARE) and/or is capable of inhibiting the toxin (toxin-inhibitory SNARE). The protein can be used in a method of treating a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of performing SNARE-dependent exocytosis. comprises supplying a fragment, CC variant, fusion or derivative of a SNARE or an inhibitory SNARE to the cell of the patient. The toxin resistant or toxin inhibitory SNARE to the cell of the patient or toxin resistant or toxin inhibitory SNARE or a medicament for the treatment of a patient suffering from companiant polynucleotide encoding the SNARE is useful in the supplying a fragment, comprises supplying a fragment or bosoning or at risk of poisoning by clostridial toxin, e.g. from compositions or tetanus. The fragment, variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding either of these SNARE polypeptides are useful in the manufacture of dependent exocytosis from a cell capable of performing SNARE-dependent exocytosis. The method of treatment is relatively fast, thus critical state
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SNAP-25; poisoning; clostridial toxin; toxin-inhibitory SNARE; botulism; tetan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200118038-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The sequence represents the amino acid sequence of SNARE homologue, synaptosomal-associated membrane protein, hSNAP25b, used during and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 8; 130pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dolly JO,
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nus; SNARE-dependent exocytosis;
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RESULT 6
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             toxin-inhibitory SNARE; botulism; tetanus; SNARE-depend synaptosomal-associated protein; mouse; mutant; mutein; n-ethylmal-inhide-sensitive fusion protein; soluble NSF-attachment protein receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synaptosomal-associated protein, SNAP25, mutant L203A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU02640 standard; Protein;
method of treating a patient suffering from poisoning or at risk of poisoning by a clostridial toxin, comprising supplying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) to a cell of the patient, where the SNARE is resistant to proteolysis by the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the toxin (toxin-inhibitory SNARE). The protein can be used in a method of treating a patient in need of inhibition of SNARE-dependent exocytosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus sp
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                                                                                                                                                        Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                        The sequence represents the amino acid sequence of synaptosomal-
associated protein, SNAP25, mutant L203A, used in a new
                                                                                                                                 Example 1; Page - ; 131pp; English.
                                                                                                                                                                                                                                   Dolly JO,
                                                                                                                                                                                                                                                           (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 poisoning; clostridial toxin; SNARE; toxin-resistant SNARE;
hibitory SNARE; botulism; tetanus; SNARE-dependent exocytosi
                                                                                                                                                                                                                                    O'Sullivan
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                                                                                                                                                                                                                                      Mohammed N,
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                                                                                                                                                                                                                                      Foran PG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SNARE-dependent exocytosis;
                                                                                                                                                                                     or at risk of poisoning
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AAU00259
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         suffering from poisoning or at risk of poisoning by clostridial toxin, e.g. from botulism or tetanus. The fragment, variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding either of these SNARE polypeptides are useful the manufacture of medicament for the treatment of a patient in need o inhibition of SNARE-dependent exocytosis from a cell capable of performing SNARE-dependent exocytosis. The method of treatment is relatively fast, thus alleviating the symptoms when most severe and taking the patient out of critical state.

Note: The present sequence is not shown in the specification but is derived from the mouse SNAP-25 sequence given in figure 8 (see AAU0024)
                                                                                                                                                                                                                                                                                              Mus
                                                                                                                                                                                                                      Misc-difference
                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                              SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosis; synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Synaptosomal-associated protein, SNAP25, mutant R198T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU00259 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        supplying a fragment, variant, fusion or derivative of a SNARE or an inhibitory SNARE to the cell of the patient. The toxin resistant or toxin inhibitory SNARE to a recombinant polynucleotide encoding the SNARE is useful in the manufacture of a medicament for the treatment of a patient
             (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                  20-AUG-1999;
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                                                                                                                                                               WO200118038-A2
                                                                                                                                                                                                                                                                                                                                 soluble NSF-attachment protein receptor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a cell capable of performing SNARE-dependent exocytosis, comprises
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205; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                9905-0149993
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                                                                                                                                                                                              "Wild-type Arg substituted by Thr
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Pred. No. 2e-9
0; Mismatches
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RESULT 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           considered protein, SNAP25, mutant RIBST used in a new consisted protein, SNAP25, mutant RIBST used in a new combined of treating a patient suffering from poisoning v at risk of poisoning by a clostridial toxin, comprising supplying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) con a cell of the patient, where the SNARE is resistant to proteolysis by the toxin (toxin-inhibitory SNARE). The protein can be used in a method of treating a patient in need of inhibition of SNARE-dependent exocytosis contains a cell capable of performing SNARE-dependent exocytosis, comprises contains a cell capable of performing SNARE-dependent exocytosis, comprises contains a cell capable of a recombinate polynucleotide encoding the SNARE or a neodicament for the toxin resistant or toxin contains to the cell of the patient. The toxin resistant or toxin inhibitory SNARE or a recombinant polynucleotide encoding the SNARE is confirmed to the manufacture of a medicament for the treatment of a patient contains or tetanus. The fragment, variant, Eusion or certification to the manufacture of an inhibitory SNARE, or a Ecombinant contains of these manufacture of an inhibitory SNARE, or a Ecombinant contains of the manufacture of medicament for the treatment of a patient contains of the manufacture of medicament for the treatment of a pictient in need of inhibition of SNARE dependent exocytosis from a cell capable of capable of capable of capable of the patient out of critical state.

Conteined from the manufacture is not shown in the specification but is contained from the manufacture of medicament of the symptoms when more severe and contained from the manufacture of medicament for the symptoms when more severe and contained from the manufacture of medicament of the symptoms when more severe and contained from the manufacture of medicament of the symptoms when more severe and contained from the manufacture of medicament of the symptoms when more severe and contained from the manufacture of medicame
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Matches
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Best Local
SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosis; synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                   Synaptosomal-associated
                                                                                                                                                                                                                                                            AAU00260 standard; Protein; 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               he present sequence is not shown in the specification but is from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
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                                                                                                                                                               (first entry)
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99.5%;
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Pred. No. 2.5e-90;
                                                                                                                                                                                                                                                                                                                                                                                                                           206
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                                                                                                                SNAP25, mutant Q197A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The sequence represents the amino acid sequence of synaptosomal-
CC associated protein, SNAP25, mutant Q197A, used in a new
CC method of treating a patient suffering from poisoning or at risk of
CC poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
CC (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor)
CC to a cell of the patient, where the SNARE is resistant to proteolysis by
CC treating a patient in need of inhibition of snare-dependent exocytosis
CC treating a patient in need of inhibition of SNARE dependent exocytosis
CC trom a cell capable of performing SNARE-dependent exocytosis, comprises
CC supplying a fragment, variant, fusion or derivative of a SNARE or an
CC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin
CC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin
CC e.g. from botulism or tetanus. The fragment for the treatment of a patient
CC e.g. from botulism or tetanus. The fragment, variant, fusion or
CC edrivative of a SNARE or of an inhibitory SNARE, or a recombinant
CC polynucleotide encoding either of these SNARE polypeptides are useful in
CC the manufacture of medicament for the treatment of a patient in need of
CC performing SNARE-dependent exocytosis from a cell capable of
CC relatively fast, thus alleviating the symptoms when most severe and
CC taking the patient out of critical state.

CC derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200118038-A2
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                               VDEREQMAISGGFIRRVTNDARENEMDENLEQVSGIIGNLRHMALDMGNEIDTQNRQIDR 180
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                                                                                                                                                                                                                                                                            MAEDADMRNELEEMQRRADQLADESLESTRRMLQLVEESKDAGIRTLVMLDEQGEQLERI 60
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VDEREQMAISGGFIRRVTNDARENEMDENLEQVSGIIGNLRHMALDMGNEIDTQNRQIDR
                                                                                                                                         EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1042; DB 22
Pred. No. 2.5e-90;
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                                                                                                                                                                              cc method of treating a patient suffering from polsoning or at risk of cc poisoning by a clostridial toxin, comprising supplying a SNARE (soluble cc (N-ethylmaleimide-sensitive fusion protein) attachment protein receptor) cc to a cell of the patient, where the SNARE is resistant to proteolysis by the toxin (toxin-resistant SNARE). The protein can be used in a method of creating a patient in need of inhibition of SNARE-dependent exocytosis cf from a cell capable of performing SNARE-dependent exocytosis complying a fragment, variant, fusion or derivative of a SNARE or an ecclinhibitory SNARE or a recombinant polynucleotide encoding the SNARE is cusfil in the manufacture of a medicament for the treatment of a patient cc e.g. from botulism or tetanus. The fragment, variant, fusion or cell clostridial toxin, cc e.g. from botulism or tetanus. The fragment, variant, fusion or cc e.g. from botulism or of an inhibitory SNARE, or a recombinant cc derivative of a SNARE or of an inhibitory SNARE, or a recombinant cc inhibitory of SNARE or of an inhibitory SNARE, or a recombinant cc derivative of a SNARE or of an inhibitory SNARE, or a recombinant continue of successful in need of the manufacture of medicament for the treatment of a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of confidence of successful in the manufacture of medicament for the treatment of a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of confidence constant accounter of the treatment of a constant of treatment in the treatment is constant to toxin the treatment of treatment in the constant toxin the manufacture of medicament for the treatment of treatment in the constant toxin the treatment of treatment in the constant toxin the treatment of treatment in the constant toxin the treatment in the treatment in the constant toxin the constant toxin the constant toxin the constant toxin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synaptosomal-associated protein,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a clostridial toxin, e.g. botulism, comprises administering toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dolly Jo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-AUG-1999;
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relatively fast, this alleviating the symptoms when most taking the patient out of critical state.

Note: The present sequence is not shown in the specificat derived from the mouse SNAP-25 sequence given in figure 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequence represents the amino acid sequence of synaptosomal-
associated protein, SNAP25, mutant R198A used in a new
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
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                                                                                                                                                  performing SNARE-dependent exocytosis. The method of treatment is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; Page - ; 131pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
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       ence is not shown in the specification but is
SNAP-25 sequence given in figure 8 (see AAU00246).
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The sequence represents the amino acid sequence of synaptosomal-associated protein, SNAP25, mutant M202A, used in a new method of treating a patient suffering from poisoning or at risk of poisoning by a clostridial toxin, comprising supplying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) to a cell of the patient, where the SNARE is resistant to proteolysis by
                                                                                                                                                                                             Example 1; Page - ; 131pp;
                                                                                                                                                                                                                                              Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                     Dolly JO,
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Pred. No. 2.5e-90;
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RESULT 11
AAU00262
PRINTER TO SOLUTION OF THE STATE OF THE STAT
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Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          suffering from poisoning or at risk of poisoning by clestridial toxin, e.g. from botulism or tetanus. The fragment, variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding either of these SNARE polypeptides are useful in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                toxin inhibitory SNARE; botulism; tetanus; SNARE-depend
synaptosomal-associated protein; mouse; mutant; mutein;
N-ethylmaleimide-sensitive fusion protein;
soluble NSF-attachment protein receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the manufacture of medicament for the treatment of a patient in need inhibition of SNARE-dependent exocytosis from a cell capable of performing SNARE-dependent exocytosis. The method of treatment is
                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNAP-25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synaptosomal-associated protein, SNAP25, mutant Q197K, R198K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU00262 standard; Protein; 206
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Note: The present sequence is not shown in the specification but derived from the mouse SNAP-25 sequence given in figuration is a sequence of the sequence of the specification of the mouse SNAP-25 sequence given in figuration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the toxin (toxin-resistant SNARE) and/or is capable of inhibiting
                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-SEP-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               poisoning; clostridial toxin; SNARE; toxin-resistant SNARE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              206 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                 /note=
                                                                                                                                                                                                                                                                               Location/Qualifiers 197
                                                                                                                                                                                       /note=
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                                                                                                                                                                             "Wild-type Arg substituted by
                                                                                                                                                                                                                                              "Wild-type Gln substituted by "ys"
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Pred. No. 2.5e-90;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Inde.s
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18-AUG-2000; 2000WO-GB03196

15-MAR-2001

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The sequence represents the amino acid sequence of synaptosomal-
CC associated protein, SNAP25, mutant Q197K/R198K, used in a new
CC method of treating a patient suffering from poisoning or at risk of
CC poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
CC (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor)
CC to a cell of the patient, where the SNARE is resistant to proteolysis by
CC treating a patient in need of inhibition of SNARE comprises
CC from a cell capable of performing SNARE-dependent exocytosis
CC treating a patient, variant, fusion or derivative of a SNARE or an
CC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin
CC inhibitory SNARE to a recombinant polynucleotide encoding the SNARE is
CC useful in the manufacture of a medicament for the treatment of a patient
CC e.g. from botulism or tetanus. The fragment, variant, fusion or
CC edrivative of a SNARE or of an inhibitory SNARE, or a recombinant
CC the manufacture of medicament for the treatment of a patient
CC the manufacture of medicament for the treatment of a patient
CC the manufacture of medicament for the treatment of a patient of
CC inhibition of SNARE dependent exocytosis from a cell capable of
CC inhibition of SNARE-dependent exocytosis from a cell capable of
CC inhibition of SNARE-dependent exocytosis from a cell capable of
CC taking the patient out of critical state.

CC Note: The present sequence is not shown in the specification but is
CC derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
                                                                                                                                RESULT 12
AAU00257
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; Page - ; 131pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
Synaptosomal-associated protein, SNAP25, mutant Q197A/R198K
                                       1.2-SEP-2001
                                                                            AAU00257;
                                                                                                               AAU00257 standard; Protein;
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                                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1041; DB 22; Pred. No. 3.1e-90;
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61

EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV 120

Matches Query Match

ocal Similarity

99.1%;

Score 1039; DB 22 Pred. No. 4.8e-90; Mismatches

DB 22;

Indels Length

0

Gaps

0

60

Conservative

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MAEDADMRNELEEMQRRADQLADESLESTRRMLQLVEESKDAGIRTLVMLDEQGEQLERI

Sequence

206 AA;

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SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosis; synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                           The sequence represents the amino acid sequence of synaptosomal-
associated protein, SNAP25, mutant 0,197A,7198K, used in a new
method of treating a patient suffering from poisoning or at risk of
method of treating a patient suffering from poisoning or at risk of
poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
N-ethylmaleimide-sensitive fusion protein) attachment protein receptor)
to a cell of the patient, where the SNARE is resistant to proteolysis by
the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the
toxin (toxin-inhibitory SNARE). The protein can be used in a method of
treating a patient in need of inhibition of SNARE-dependent exocytosis
from a cell capable of performing SNARE-dependent exocytosis, comprises
supplying a fragment, variant, fusion or derivative of a SNARE or an
inhibitory SNARE to the cell of the patient. The toxin resistant or toxin
inhibitory SNARE for a recombinant polynucleotide encoding the SNARE is
inhibitory SNARE and a medicament for the treatment of a patient
useful in the manufacture of a medicament for the treatment of a patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Wild-type Gln substituted by Ala" Misc-difference 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dolly JO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ds sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                soluble
                                                                                                                        suffering from polsoning or at risk of polsoning by clostridial toxin, e.g. from botulism or tetanus. The fragment variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding either of these SNARE polypeptides are useful inhibition of medicament for the treatment of a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of performing SNARE-dependent exocytosis. The method of treatment is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-226739/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-AUG-2000; 2000WO-GB03196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200118038-A2
           relatively fast, thus are received the specification but is taking the patient out of critical state.

Note: The present sequence is not shown in the specification but is derived from the mouse SNAP-25 sequence given in figure 8 (see AAUO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; Page - ; 131pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NSF-attachment protein receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         O'Sullivan GA, Mohammed N, Foran
                                                                                                          fast, thus alleviating the symptoms when most severe and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0149993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Wild-type Arg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         substituted by Lys'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PG
                                                 figure 8 (see AAU00246).
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RESULT 13
AAU00266
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Вb
The sequence represents the amino acid sequence of synaptosomal-
CC associated protein, SNAP25, mutant Q197K/R198H, used in a new
method of treating a patient suffering from poisoning or at risk of
CC method of treating a patient suffering from poisoning or at risk of
CC poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
CC (N-ethylmalaimide-sensitive fusion protein)-attachment protein receptor)
CC to a cell of the patient, where the SNARE is resistant to proteolysis by
CC the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the
CC treating a patient in need of inhibition of SNARE-dependent exocytosis
CC treating a patient in need of inhibition of SNARE-dependent exocytosis
CC treating a cell capable of performing SNARE-dependent exocytosis, comprises
CC supplying a fragment, variant, fusion or derivative of a SNARE or an
CC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin
CC inhibitory SNARE or a recombinant polynucleotide encoding the SNARE is
CC useful in the manufacture of a medicament for the treatment of a patient
CC suffering from poisoning or at risk of poisoning by clostridial toxin,
CC e.g. from botulism or tetanus. The fragment, variant, fusion or
                                                                                                                                                                                                                                                                                                                                                                                                                       WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosis; synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                           Example 1; Page - ; 131pp; English
                                                                                                                                                                                                                                                                                                                                            Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dolly Jo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200118038-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     soluble NSF-attachment protein receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synaptosomal-associated protein, SNAP25, mutant Q197K/R198H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU00266;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU00266 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VDEREQMAISGGFIRRVTNDARENEMDENLEQVSGIIGNLRHMALDMGNEIDTQNRQIDR 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV 120
                                                                                                                                                                                                                                                                                                                                                                                                                       2001-226739/23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         O'Sullivan GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-GB03196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0149993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Wild-type Arg
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mohammed N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           206
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        substituted by
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Foran
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RESULT 14
AAU02171
ACC CONTRACTOR CONTRAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           toxin-inhibitory SNARE; botulism; tetanus; SNARE-dipend synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     relatively fast, thus alleviating the symptoms when most severe and taking the patient out of critical state.

Note: The present sequence is not shown in the specification but is derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polynucleotide encoding either of these SNARE polypeptides are useful the manufacture of medicament for the treatment of a patient in need inhibition of SNARE dependent exocytosis from a cell capable of
                                                 WPI; 2001-226739/23
                                                                                                      Dolly JO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synaptosomal-associated protein, SNAP25, mutant R198T/L203A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU02171 standard; Protein; 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               derivative of a SNARE or of an inhibitory SNARE, or a recombinant
                                                                                                                                                                                                               20-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                      WO200118038-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                              L8-AUG-2000; 2000WO-GB03196
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                                                                                                                                                          IMPERIAL COLLEGE INNOVATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NSF-attachment protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 poisoning; clostridial toxin; SNARE; toxin-resistant SNARE;
                                                                                                   O'Sullivan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           206 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                         9908-0149993
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203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
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                                                                                                      GA,
                                                                                                                                                                                                                                                                                                                                                                                                                   "Wild-type Leu substituted by Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Wild-type Arg
                                                                                                      Mohammed N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1039; DB 22
Pred. No. 4.8e-90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             receptor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tetanus; SNARE-dependent exocytosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          substituted by Thr"
                                                                                                      Foran
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22;
                                                                                                      PG;
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Treating a patient suffering from poisoning or at risk of poisoning

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RESULT 15
AAU00256
ID AAU00
XX
AC AAU00
XX
BY 12-SE
XX
SYNAP
XX
SYNAP
KW SYNAP
KW SYNAP
KW SYNAP
KW N-eth
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SYNL
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        From a cell capable of performing SNARE-dependent exocytosis, comprises supplying a fragment, variant, fusion or derivative of a SNARE or an inhibitory SNARE to the cell of the patient. The toxin resistant or toxin inhibitory SNARE or a recombinant polynucleotide encoding the SNARE is useful in the manufacture of a medicament for the treatment of a patient suffering from poisoning or at risk of poisoning by clostridial toxin, e.g. from borulism or tetanus. The fragment, variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding either of these SNARE polypeptides are useful in the manufacture of medicament for the treatment of a patient in need of inhibition of SNARE-dependent exocytosis. The method of treatment is relatively fast, thus alleviating the symptoms when most severe and taking the patient out of critical state.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  associated protein, SNAP25, mutant R1987/L203A, used in a new method of treating a patient suffering from poisoning or at risk of poisoning by a clostridial toxin, comprising supplying a SNARE (soluble N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) to a cell of the patient, where the SNARE is resistant to proteolysis by the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the toxin (toxin-inhibitory SNARE). The protein can be used in a method of treating a patient in need of inhibition of SNARE-dependent exocytosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a clostridial toxin, e.g. botulism, comprises administering toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequence represents the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                              toxin-inhibitory SNARE; botulism; tetanus; SNARI synaptosomal-associated protein; mouse; mutant; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                   SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant
toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
                                                                                                                                                                                                                                                                                                       AAU00256 standard; Protein;
                   Synthetic
                                      Mus sp.
                                                                           soluble NSF-attachment protein receptor
                                                                                                                                                                                       Synaptosomal-associated protein, SNAP25, mutant Q197A/R198A.
                                                                                                                                                                                                                               12-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VDEREQMAISGGFIRRVTNDARENEMDENLEQVSGIIGNLRHMALDMGNEIDTQNRQIDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV 120
                                                                                                                                                                                                                                                                                                                                                                                                   IMEKADSNKTRIDEANQTATKMAGSG
                                                                                                                                                                                                                                                                                                                                                                                                                        IMEKADSNKTRIDEANQRATKMLGSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEREQMAISGGFIRRVTNDARENEMDENLEQVSGIIGNLRHMALDMGNEIDTQNRQIDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 204;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence is not shown in the specification but
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1037;
Pred. No. 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                                                                     exocytosis;
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180

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The sequence represents the amino acid sequence of synaptosomal-
cc associated protein, SNAP25, mutant Q197A/R198A, used in a new
method of treating a patient suffering from poisoning or at risk of
cc method of treating a patient suffering from poisoning or at risk of
cc poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
cc (N-ethylmaleImide-sensitive fusion protein)-attachment protein receptor)
cc to a cell of the patient, where the SNARE is resistant to proteolysis by
cc the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the
cc treating a patient in need of inhibition of SNARE-dependent exocytosis
cc from a cell capable of performing SNARE-dependent exocytosis
cc from a cell capable of performing SNARE-dependent exocytosis
cc inhibitory SNARE to the cell of the patient. The toxin resistant or toxin
cc inhibitory SNARE or a recombinant polynucleotide encoding the SNARE is
cuseful in the manufacture of a medicament for the treatment of a patient
cc e.g. from botulism or tetanus. The fragment, variant, fusion or
cc e.g. from botulism or tetanus. The fragment, variant, fusion or
cc e.g. from botulism or tetanus. The fragment, variant, fusion or
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cc e.g. from botulism or tetanus. The fragment, variant, fusion or
cc e.g. from botulism or tetanus. The fragment of a patient in
cc e.g. from botulism or tetanus. The fragment of a patient in need of
cc inhibition of SNARE or of an inhibitory SNARE polypeptides are useful in
the manufacture of medicament for the treatment of a patient in need of
cc inhibition of SNARE-dependent exocytosis from a cell capable of
cc inhibition of SNARE-dependent exocytosis from a cell capable of
crelatively fast, thus alleviating the symptoms when most severe and
cc taking the patient out of critical shown in the specification but is
capable of the patient out of critical shown in the specification but is
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Key
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; Page - ; 131pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Note: The present sequence is not shown in the specification but derived from the mouse SNAP-25 sequence given in figure 8 (see Af
                                                                                                                                                                    61
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                                                                                                                                                                                       EEGMDQINKDMKEAEKNLTDLGKFCGLCVCPCNKLKSSDAYKKAWGNNQDGVVASQPARV
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Pred. No. 9.1e-90;
0; Mismatches 2
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Pred. No. is the number of results predicted by chance to have score greater than or equal to the score of the result being pu and is derived by analysis of the total score distribution. printed,

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WIADIGODSIS CHAILA			Novel human diagno	Amino acid sequenc	Human polypeptide	Influenza virus ha	Influenza strain A	n diagno	Novel human diagno	Orosophila melanog	Novel human diagno	Staphylococcus epi		S. epidermidis ope	Synaptosomal-assoc	<pre>synaptosomal-assoc</pre>	<pre>\$ynaptosomal-assoc</pre>	<pre>synaptosomal-assoc</pre>	<pre>synaptosomal-assoc</pre>	•	SNARE homologue, s	<pre>synaptosomal-assoc</pre>	. Mouse synaptosomal	: fouse SNAP-25 poly	<pre>synaptosomal assoc</pre>	<pre>synaptosomal-assoc</pre>	1-as	<pre>Synaptosomal-assoc</pre>							

ALIGNMENTS

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ARBSULT 1
ARABJOOO98
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW30098;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9734620-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Neurotransmitter secretion inhibitor #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A
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Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle; excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spasiicity reduction; synaptosomal associated protein; SNAP-25. (REGC) UNIV CALIFORNIA. 18-MAR-1996; 18-MAR-1997; 25-SEP-1997. 96US-0013599 97WO-US04393.

WPI; 1997-479986/44.

Excitation-secretory uncoupling peptide(s) for inhibit..ng muscle neuro:transmitter release - used particularly for trea:ing muscle

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CC synaptosomal associated protein (SNAP-25), and is a inhibitory agent of CC synaptosomal associated protein (SNAP-25), and is a inhibitory agent of CC the invention. The agents of the invention inhibit secretion of CC encupring peptide (I) of at least 20 amino acids (aa) all of which CC correspond substantially to any one of AAW30097-W30102, or more CC generally any (I) that inhibits 50% of catecholamine secretion from CC microm, or less. (I) are used, as a replacement for Clostridium toxin, to CC inhibit release of neurotransmitters from synaptic vesicles, specially CC of substance of neurotransmitters from synaptic vesicles, specifically CC vivo imaging of intracellular distribution of (I). Compounds for CC of substance P to brain tumours for induction of agents. Unlike the neurotrains, (I) are not toxic or immunogenic and are more readily CC available. Their therapeutic effect lasts for several days or weeks, so CC lower doses or less frequent treatments are required.
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   Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       spasticity,
                                                                                        Excitation-secretory uncoupling peptide(s) for inhibiting neuro:transmitter release - used particularly for treating spasticity, and for delivering drugs specifically to neuron spaceticity.
                                                                                                                                                                                                                                                                                                                                                                                                  excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spasticity reduction; synaptosomal associated protein; SNAP-25.
 This sequence corresponds to residues 170-206 of the human 25 kD synaptosomal associated protein (SNAP-25), and is a inhibitory agent the invention. The agents of the invention inhibit secretion of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW30097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW30097 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                               Claim 1; Page 30; 61pp; English
                                                                                                                                                         WPI; 1997-479986/44.
                                                                                                                                                                                   Montal
                                                                                                                                                                                                                                                  18-MAR-1996;
                                                                                                                                                                                                                                                                                18-MAR-1997;
                                                                                                                                                                                                                                                                                                             25-SEP-1997.
                                                                                                                                                                                                                                                                                                                                           WO9734620-A1
                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Neurotransmitter secretion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Neurotransmitter secretion inhibitor #1.
                                                                                                                                                                                                                    (REGC ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
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8; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and for delivering drugs specifically to neural cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                                                                                                                                                      CALIFORNIA
The agents of the
                                                                                                                                                                                                                                                  96US-0013599.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   inhibitor; neuronal cell; synaptic vesicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 20;
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                                                                                              treating muscle
to neural cells
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RESULT
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          microm, or less. (I) are used, as a replacement for Clostridium toxin, to inhibit release of neurotransmitters from synaptic vesicles, specifically for reducing muscle spasticity. Also (I) may be labelled to allow in vivo imaging of intracellular distribution of (I). Compounds for delivering the drug to neural cells provide targeted drug delivery, e.g. of substance P to brain tumours for induction of apoptosis. Unlike the neurotoxins, (I) are not toxic or immunogenic and are more readily available. Their therapeutic effect lasts for several days or weeks, so lower doses or less frequent treatments are required.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           neurotransmitter from neuronal cells and is an excitation-secretory uncoupling peptide (I) of at least 20 amino acids (aa) all of which correspond substantially to any one of AAW30097-W301102, or more generally any (I) that inhibits 50% of catecholamine secretion from bovine chromaffin cells at a concentration of 10 microM, especially 0.25 to the concentration 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; brain expressed exon; gene expression analysis; microarray; Alzheimer's disease; multiple sclerosis; so
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human brain expressed single exon probe encoded
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                                                                                                                                                                                                                 Single
brains
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JUN-2000;
03-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-FEB-2000;
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27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                    Penn
                                                                                                                                                                                                                                                                                                                                                                                (MOLE-)
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                                                                                                                                                                                                                                                                                     2001-483446/52
                                                                                                                                                                                                                        exon
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8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                  MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                    Hanzel
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                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0180312.

2000US-0207456.

2000US-0608408.

2000US-0632366.

2000US-0234687.

2000US-0236359.

2000GB-0024263.
                                                                                                                                                                                                                                       nucleic acid probes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                    K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                    Chen
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                    Rank
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                                                                                                                                                                                                                                       for analyzing gene expression in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s; probe;
schizophrenia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ
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The present invention provides a number of single exon nucleic acid probes which are derived from genomic sequences expressed in the human brain. They can be used to measure gene expression in brain cell samples, which may enable the diagnosis and improved treatment of nervous system diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia,

cancers.

present

sequence is

protein

encoded

one 0f Example 4;

SEQ

ID NO:

29491; 650pp + Sequence Listing;

English

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RESULT 4

AAR86823

AAR8682

AAR8
RESULT 5
AAB15584
ID AAB1
XX
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Best Local Similarity
Thes 8; Conserv
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                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                Query Match
Best Local :
                       AAB15584 standard;
                                                                                                                                                                                                                                                                                                                                                                                                   The botulinum neurotoxins possess highly specific zinc-endopeptidase activities within their light sub-units. Depending on the neurotoxin type these act to cleave small proteins within the nerve cell which are involved in neurotransmitter release. Antibodies are used in assays which detect cleaved but not uncleaved substrate. Assays for botulinum types A and E use the present sequence as a substrate. The sequence is SNAP-25 protein, residues 137-206.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Assay for botulinum or tetanus toxin - by substrate which is cleaved by the toxin, a the cleaved but not uncleaved substrate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VAMP; vesicle-associated membrane protein; SNAP-25; syntaxin neurotransmitter; neurotoxin; botulinum; botulism; cleavage;
                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 4; Page 19; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1996-040249/04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hallis B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             substrate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SNAP-25 residues 137-206
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR86823 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CAMR-) CAMR CENT APPLIED MICROBIOLOGY & RES. (MICR-) MICROBIOLOGICAL RES AUTHORITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-AUG-1996
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41 QIDRIMEK 48
                                                                                                                                                                                                                                                Local Similarity
les 8; Conserv
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QIDRIMEK 48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               James BAF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibody; detection; assay.
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                                                                                                                                                                                                                                                                                                                                                         70 AA;
                                                                                                                                                                                                                                                      Conservative
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                          peptide; 86 AA.
                                                                                                                                                                                                                                                                           100.0%;
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Pred. No. 0.96;
                                                                                                                                                                                                                                                                                Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                           1.4;
                                                                                                                                                                                                                                                                                                  DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              combining test cpd. with and antibody specific for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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                                                                                                                                                                                                                                                                                                     Length 70;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                   Indels
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                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
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                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                   0;
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RESULT 6
AAO15165
ID AAO1
XX AAO1
AC AAO1
XX O2-S
XX Clos
XX C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to new peptides comprising 3-30 contiguous amino acids from the N-terminus of the protein SNAP-25 (synaptosomal-associated protein 55). The peptides AABLI:581-B1586 represent examples of the peptides of the invention. The peptides have neuronal exocytosis inhibitory activity and are used for treatment of facial wrinkles and asymmetry and pathological neuronal exocytosis-mediated pathological disorders and alterations manifested
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dermatological; neuroprotective; relaxant; neuronal exocytosis modulator; SNAP-25; synaptosomal-associated protein 25; facial wrinkle; asymmetry; neurodegenerative disorder.
                                                                                                                                                      fluorescence resonant energy transfer assay; quenched-signal; clostridial neurotoxin detection; food.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Blanes Mira MC, Llobregat Hernandez MM, Fernandez Ballester GJ, Planell Cases RM, Viniegra Bover S, Gutierrez Perez LM, Ca
                           Modified-site
                                                                                                        Unidentified
                                                                                                                                                                                                        Clostridial neurotoxin substrate; botulinum neurotoxin substrate; FRET;
                                                                                                                                                                                                                                                                    Clostridial
                                                                                                                                                                                                                                                                                                                        02-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                            AA015165;
                                                                                                                                                                                                                                                                                                                                                                                                                           AAO15165 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New peptides containing amino acid sequences treatment of neurological disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200064932-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (LIPO-) LIPOTEC SA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
les 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 QIDRIMEK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QIDRIMEK 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          by spasms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001-007091/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Paya E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         86 AA;
                                                                                                                                                                                                                                                              neurotoxin protease substrate peptide 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and neurological and neurodegenerative disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99ES-0000844
                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                           peptide; 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RM, Ferrer Mont:.el AV;
Carbonell Caste.l T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
1.7;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3-30 contiguous amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indel s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for
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/note= "S-fluoresceinyl-cysteine"

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RESULT 7
AAO15166
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention comprises clostridial neurotoxin substrate peptides which can serve as fluorescence resonant energy transfer assay (FRET) or quenched-signal substrates in assays for the proteolytic activities of clostridial neurotoxins. The invention further comprises Clostridium botulinum neurotoxin substrate peptides that can serve as immobilised substrates (i.e. bound to a solid phase) in assays for the proteolytic activities of clostridial neurotoxins. The clostridial (including the clostridium botulinum) neurotoxin substrate peptides are useful for detecting the presence of clostridial neurotoxins in a sample (e.g. food or an environmental sample). The present amino acid sequence represents clostridial neurotoxin substrate peptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cleavage-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cleavage-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Substrate useful in e.g. an assay for the protease activity of clostridial neurotoxin, comprises modified peptide or protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-499829/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Schmidt JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-SEP-2000; 2000US-235050P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-SEP-2001; 2001WO-US30188
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (USME-) US MEDICAL RES INST INFECTIOUS DISEASES
                                                                                                                                                                                                                                                                                                                  Clostridial neurotoxin substrate; botulinum neurotoxin substrate; FRET; fluorescence resonant energy transfer assay; quenched-signal;
                                                                                                                                                                                                                                                                                                                                                                                                   Clostridial neurotoxin protease substrate peptide 5.
WO200225284-A2
                                                                                                         Cleavage-site
                                                                                                                                                                                                                                           Unidentified
                                                                                                                                                                                                                                                                                               clostridial neurotoxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA015166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAO15166 standard;
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                                                                                                                                                             Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     86
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8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     116 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stafford
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "The residues by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89..90
/note-
                                                                                                      /note=
                                               /note= "The peptide is cleaved between these two
residues by type E Clostridium botulinum neurotoxin"
                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RG;
                                                                                                                                 "S-fluoresceinyl-cysteine"
                                                                                                                                                                                                                                                                                               detection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide is cleaved
type A Clostridium
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116
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                                                                                                                                                                                                                                                                                                  food
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 116;
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RESULT 8
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 28; Page 17; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Substrate useful in e.g. an assay clostridial neurotoxin, comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosisynaptosomal-associated protein; mouse; mutant; mutein; Nethylmaleinide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synaptosomal-associated protein, SNAP25, C-terminal deletion 1-198.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (USME-)
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                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    soluble NSF-attachment protein receptor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU00255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU00255 standard; Protein; 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                     Dolly JO,
                                                                                                                                                                     20-AUG-1999;
                                                                                                                                                                                                                        18-AUG-2000;
                                                                                                                                                                                                                                                                              15-MAR-2001
                                                                                                                                                                                                                                                                                                                                   WO200118038-A2
                                                                                                                (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86 QIDRIMEK 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 QIDRIMEK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002-499829/53
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         116
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                                                           O'Sullivan
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                           2000WO-GB03196
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                                                                                                                                                                     99US-0149993
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                                                           GA,
                                                             Mohammed N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 39; DB Pred. No. 2.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for the protease modified peptide
                                                             Foran PG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNARE-dependent exocytosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23;
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or protei
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The sequence represents the amino acid sequence of synaptosomal-
CC method of treating a patient suffering from poisoning or at risk of
CC poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
CC (N-ethylmaleimide-sensitive fusion protein) attachment protein receptor)
CC to a cell of the patient, where the SNARE is resistant to proteolysis by
CC the toxin (toxin-inhibitory SNARE). The protein can be used in a method of
CC treating a patient in need of inhibition of SNARE-dependent exocytosis
CC trom a cell capable of performing SNARE-dependent exocytosis
CC supplying a fragment, variant, fusion or derivative of a SNARE or a recombinant polyvucleotide encoding the SNARE is
CC suffering from poisoning or at risk of poisoning by clostridial toxin,
CC e.g. from botulism or tetanus. The fragment, variant, fusion or
CC derivative of a SNARE or of an inhibitory SNARE, or a recombinant
CC e.g. from botulism or tetanus. The fragment, variant, fusion or
CC enjvucleotide encoding either of these SNARE polypeptides are useful in
CC e.g. from botulism or tetanus. The fragment, variant, fusion or
CC enjvucleotide encoding either of these SNARE polypeptides are useful in
CC enforming SNARE-dependent exocytosis. The method of treatment is
CC unitative of sNARE-dependent exocytosis. The method of treatment is
CC relatively fast, thus alleviating the symptoms when most severe and
CC taking the patient out of critical state.
CC Note: The present secuence is not shown in the specification but is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 8
                                                                                                                                                                                                                                                                       SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosi synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                     Mus sp.
Synthetic
               18-AUG-2000; 2000WO-GB03196
                                                      15-MAR-2001
                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                              soluble
                                                                                                                                                                                                                                                                                                                                                                      Synaptosomal-associated protein, SNAP25, mutant 1-199(R198T).
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU00263;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                           WO200118038-A2
                                                                                                                                                                                                                                                                                                                                                                                                             12-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU00263 standard; Protein; 199 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 1; Page - ; 131pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
mes 8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 QIDRIMEK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QIDRIMEK 184
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                                                                                                                                                                                                                                                              NSF-attachment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               198 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence is not shown in the specification but is mouse SNAP-25 sequence given in figure 8 (see AAU)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 39;
100.0%; Pred. No.
tive 0; Mismatcl
                                                                                                                        "Wild-type Arg substituted by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                              tetanus; SNARE-dependent exocytosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 22;
3.7;
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AAU00264
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            method of treating a patient suffering from poisoning or at risk of CC poisoning by a clostridial toxin, comprising supplying a SNARE (soluble CC (N-ethylmaleimide-sensitive fusion protein) attachment protein receptor) CC to a cell of the patient, where the SNARE is resistant to proteolysis by CC the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the CC toxin (toxin-inhibitory SNARE) The protein can be used in a method of CC treating a patient in need of inhibition of SNARE-dependent exocytosis comprises in a fingment, variant, fusion or derivative of a SNARE or a supplying a fragment, variant, fusion or derivative of a SNARE or an CC inhibitory SNARE or a recombinant polynucleotide encoding the SNARE is supplying a fragment are combinant for the treatment of a patient composition or toxin inhibitory SNARE or a recombinant for the treatment of a patient composition or tetanus. The fragment, variant, fusion or suffering from poisoning or at risk of poisoning by clestridial toxin, ce.g. from botulism or tetanus. The fragment, variant, fusion or compositive of a SNARE or of an inhibitory SNARE, or a recombinant compositive of a SNARE or of these SNARE SNARE, or a recombinant compositive of a SNARE or of these SNARE, or a recombinant compositive of a SNARE-dependent exocytosis from a cell capable of sufforming SNARE-dependent exocytosis from a cell capable of sufforming SNARE-dependent exocytosis. The method of treatment and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                   toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent synaptosomal-associated protein; mouse; mutant; mutain; N-ethylmaleimide-sensitive fusion protein; soluble NSF-attachment protein receptor.
                                                                                                                                                                                                                                                                                                                                           SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Treating a patient suffering from poisoning or at risk of poisoning by a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                         Misc-difference
                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                        Synaptosomal-associated protein, SNAP25, mutant 1-200(R198T).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU00264;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU00264 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            relatively fast, thus alleviating the symptoms when most severe taking the patient out of critical state.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The sequence represents the amino acid sequence of synaptosomal-
associated protein, SNAP25, mutant 1-199(R198T), used in a new
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; Page - ; 131pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          derived from the mouse SNAP-25 sequence given in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                177 QIDRIMEK 184
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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                                         Location/Qualifiers
/note= "Wild-type Arg substituted by Thr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 199;
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                                                                                                                                                                                                                                                                                                                                        exocytosis;
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RESULT 11
AAU02637
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                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Treating a patient suffering from poisoning or at risk of poisoning by a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
          SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosis; synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  performing SNARE-dependent exocytosis. The method of treatment is relatively fast, thus alleviating the symptoms when most severe and taking the patient out of critical state.

Note: The present sequence is not shown in the specification but is derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-MAR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-226739/23
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                                                                                                                      Synaptosomal-associated protein, SNAP25, mutant 1-201(R198T).
                                                                                                                                                                                                       AAU02637;
                                                                                                                                                                                                                                           AAU02637 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
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                                                                                                                                                                                                                                                                                                                                               177 QIDRIMEK 184
                                                                                                                                                                                                                                                                                                                                                                                       1 QIDRIMEK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
8; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                             (first entry)
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100.0%; pr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                   3.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 200;
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AAU00265
ID AAU
XX
AC AAU
XX
DT 12-9
XX

12-SEP-2001 AAU00265;

(first entry)

RESULT 12

AAU00265 standard;

Protein;

202

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                                                                                                                                                                                 CC associated protein, SNAP25 mutant 1-201(R1987), used in a new method of treating a patient suffering from polsoning or at risk of CC (N-ethylmaleimide-sensitive fusion protein) attachment protein receptor) CC to a cell of the patient, where the SNARE is resistant to proteolysis by CC the toxin (toxin-resistant SNARE). The protein can be used in a method of CC treating a patient in need of inhibition of SNARE-dependent exocytosis cC from a cell capable of performing SNARE-dependent exocytosis cC from a cell capable of performing SNARE-dependent exocytosis cC inhibitory SNARE or a recombinant polynucleotide encoding the SNARE is useful in the manufacture of a medicament for the toxin resistant or toxin CC e.g. from botulism or tetanus. The fragment, variant, fusion or derivative of a patient CC erivative of a SNARE or of an inhibitory SNARE or a recombinant polynucleotide encoding the SNARE is CC erivative of a SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding the SNARE is CC erivative of a SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding either of these SNARE polypeptides are useful in the manufacture of an inhibitory SNARE, or a recombinant polynucleotide encoding either of these SNARE polypeptides are useful in the manufacture of sNARE-dependent exocytosis from a cell capable of inhibition of SNARE-dependent exocytosis. The method of treatment is crelatively fast, thus alleviating the symptoms when most severe and CC taking the patient used of since symptoms when most severe and CC taking the patient sequence is not shown in the specification but is derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
                                                                           Matches
                                                                                             Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200118038-A2
                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The sequence represents the amino acid sequence of synaptosomal-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; Page - ; 131pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-AUG-2000; 2000WO-GB03196
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177
                                    1 QIDRIMEK 8
QIDRIMEK 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-226739/23
                                                                         Similarity
8; Conser
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                                                                                                                                                       201
                                                                         100.0%; ilarity 100.0%; Conservative 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mohammed N, Foran PG
                                                                           0;
                                                                                             Score 39; [
Pred No. 3.
                                                                           Mismatches
                                                                                                                DB 22; Length 201;
                                                                                                . 8
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                                                                           Gaps
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Synaptosomal-associated

protein, SNAP25, mutant 1-202(R198T).

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                                                                                                                                                                                                                                                                                                     the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the Coxin (toxin-resistant SNARE) and/or is capable of inhibiting the Coxin (toxin-inhibitory SNARE). The protein can be used in a method of treating a patient in need of inhibition of SNARE-dependent exocytosis. Comparises CC from a cell capable of performing SNARE-dependent exocytosis, comprises CC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin inhibitory SNARE or a recombinant polynucleotide encoding the SNARE is CC useful in the manufacture of a medicament for the treatment of a patient suffering from poisoning or at risk of poisoning by clostridial toxin, CC e.g. from botulism or tetanus. The fragment, variant, fusion or CC derivative of a SNARE or of an inhibitory SNARE, or a recombinant CC polynucleotide encoding either of these SNARE polypeptides are useful in CC the manufacture of medicament for the treatment of a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of CC relatively fast, thus alleviating the symptoms when most severe and CC taking the patient out of critical state.

CC Note: The present sequence is not shown in the specification but is CC derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
                                                                                                                                                                                         Query Match
                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The sequence represents the amino acid sequence of synaptosomal-
associated protein, SNAP25, mutant 1-202(R198T), used in a new
method of treating a patient suffering from poisoning or at risk of
poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
(N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor)
to a cell of the patient, where the SNARE is resistant to proteolysis by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependence synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Page + ; 131pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-226739/23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        soluble NSF-attachment protein receptor.
                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SNAP-25; poisoning;
177 QIDRIMEK 184
                                                                                                                                                        Local Similarity
                                                            1 QIDRIMEK 8
                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O'Sullivan GA,
                                                                                                                                                                                                                                                          202
                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9908-0149993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                clostridial toxin; SNARE; toxin-resistant SNARE; ARE; botulism; tetanus; SNARE-dependent exocytosis;
                                                                                                                                                        100
                                                                                                                                                        0.0%;
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                                                                                                                         0;
                                                                                                                                                        Score 39;
Pred. No.
                                                                                                                         Mismatches
                                                                                                                                                        DB 22;
                                                                                                                      0;
                                                                                                                                                                                   Length 202;
                                                                                                                         Indels
                                                                                                                      0;
                                                                                                                      Gaps
                                                                                    . 0;
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RESULT 13

Query Match Best Local S Matches 8

Similarity 8; Conserv

100.0%; ilarity 100.0%; Conservative 0

0

Score 39; DE Pred. No. 3.8 0; Mismatches

DB 22; 3.8; 0

Length 203; Indels

0;

Gaps

0

Sequence

203

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AAU02636
                                                                                                                                     method of treating a patient suffering from poisoning or at risk of copisoning by a clostridial toxin, comprising supplying a SNARE (soluble CC (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) to a cell of the patient, where the SNARE is resistant to proteinly the coxin (toxin-resistant SNARE) and/or is capable of inhibiting the coxin (toxin-thibitory SNARE). The protein can be used in a method of creating a patient in need of inhibition of SNARE-dependent exocytosis comprises supplying a fragment, variant, fusion or derivative of a SNARE or a supplying a fragment, variant, fusion or derivative of a SNARE or a recombinant polynucleotide encoding the SNARE is supplying a fragment are combinant for the trearment of a patient cuseful in the manufacture of a medicament for the trearment of a patient cuseful in the manufacture of a medicament for the trearment of a patient cuseful in the manufacture of an inhibitory SNARE, or a recombinant complynucleotide encoding either of these SNARE polypeptides are useful in the manufacture of medicament for the treatment of a patient combinant complynucleotide encoding either of these SNARE polypeptides are useful in the manufacture of medicament for the treatment of a patient combinant combination of SNARE-dependent exocytosis from a cell capable of combination of SNARE-dependent exocytosis from a cell capable of selections of SNARE-dependent exocytosis. The method of treatment and combination of SNARE-dependent exocytosis when means and combination of the streament of the supplication of the streament and the supplication and solve a supplication and solve as a supplication of supplication and supplic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers Misc-difference 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      toxin-inhibitory SNARE; botulism; tetanus; synaptosomal-associated protein; mouse; mu N-ethylmaleimide-sensitive fusion protein;
                                                                                             relatively fast, thus alleviating the symptoms taking the patient out of critical state.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The sequence represents the amino acid sequence of syntptosomal-associated protein, SNAP25, mutant 1-203(R198T), used in a new
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page - ; 131pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-226739/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dolly JO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-AUG-1999;
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toxin-inhibitory SNARE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNAP-25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synaptosomal-associated protein, SNAP25, mutant 1-203(R.98T).
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                                             The present sequence is not shown in the specification but is ad from the mouse SNAP-25 sequence given in figure 8 (see AAU)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NSF-attachment protein receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       O'Sullivan GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0149993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Wild-type Arg substituted by Thr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clostridial toxin; SNARE; toxin-res:stant SNARE;
ARE; botulism; tetanus; SNARE-dependent exocytosis;
ated protein; mouse; mutant; mutein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mohammed N,
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                                             (see AAU00246).
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RESULT 14
AAW30103
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 В
                                                                                                                                                                 This sequence represents the human 25 kD synaptosomal associated protein (SNAP-25), which is an inhibitory agent of the invention. The agents of the invention inhibit secretion of neurotransmitter from neuronal cells and is an excitation-secretory uncoupling peptide (I) of at least 20 amino acids (aa) all of which correspond substantially to any one of AAW30097-W30102, or more generally any (I) that inhibits 50% of catechbolamine secretion from bovine chromaffin cells at a concentration of 10 microM, especially 0.25 microM, or less. (I) are used, as a replacement for Clostridium toxin, to inhibit release of neurotransmitters from synaptic vesicles, specifically for reducing muscle spasticity. Also (I) may be labelled to allow in vivo imaging of intracellular distribution of (I). Compounds for delivering the drug to brain tumours for induction of apoptosis. Unlike the neurotrains, (I) are not toxic or immunogenic and are more readily available. Their therapeutic effect lasts for several days or weeks, so lower doses or
                                                                           Query Match
Best Local
                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW30103 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 27-28; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Excitation-secretory uncoupling peptide(s) for inhibiting muscle neuro:transmitter release - used particularly for treating muscle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9734620-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spasticity reduction; synaptosomal associated protein; SNAP-25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW30103;
                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      spasticity, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1997-479986/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Montal M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-MAR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synaptosomal associated protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   177
   177
                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 QIDRIMEK 8
|||||||
7 QIDRIMEK 184
                              QIDRIMEK 8
                                                                                                                                                       frequent treatments are required.
QIDRIMEK 184
                                                                                                                          206
                                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for delivering drugs specifically to neural cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide; 206 AA
                                                                           100
                                                                           . 0%;
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                                                                           Score 39;
Pred. No.
                                                             Mismatches
                                                                           DB 18;
3.9;
                                                             0,
                                                                                          Length 206;
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                                                             Gaps
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RESULT 15

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1 QIDRIMEK 8

Query Match Best Local S Matches 8

Similarity 8; Conserv

Conservative

100.0%; 0

Score 39; DE Pred. No. 3.9); Mismatches

В 19; 0

Length 206; Indels

0;

Gaps

0;

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This represents a mouse SNAP-25 polypeptide, a component of the protein componential provides thought to underlie vesicle docking and fusion. The invention provides rat and human Hrs-2 polypeptides which are ATP-30 preferring nucleotidase that associate with SNAP-25. For identifying a compound capable of modulating calcium-regulated secretion of secretory vesicles, a SNAP-25 polypeptide can be contacted with a Hrs-2 polypeptide, in the presence and absence of a test compound. The effect of the test compound on the extent of binding between the SNAP-25 and Hrs-2 polypeptides are measured and a compound is identified as effective if its measured effect on the extent of binding is above a threshold clevel. The products can be used for identifying drugs capable of level. The products can be used for identifying drugs capable of active zones of presynaptic membranes. Such drugs can be used for treating disorders or conditions of the central nervous system by selectively enhancing or inhibiting vesicular release in specific areas of the brain including affective disorders (a degrees the lates) disorders
                                       of the brain, including affective disorders (e.g. depression), disorders of thought (e.g. schizophrenia) and degenerative disorders ( parkinson's disease), as well as applications such as anaesthesia. The drugs can also be used therapeutically in other systems such as the endocrine system for treatment of hormonal imbalances, the immune system for intervention in antigen processing, secreted immunomodulators, and viral processing, as well as anti-tumour applications, such as regulation of membrane trafficking during rapid cell division.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New isolated Hrs-2 nucleotidase - used in assays to identify compounds capable of modulating calcium-regulatory secretion secretory vesicles, such as in neurotransmitter release
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immune system; antigen processing; immunomodulator; viral processing; central nervous system; vesicular release; affective disorder; human; anti-tumour application; membrane trafficking regulation; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hrs-2 polypeptide; ATP-preferring nucleotidase; calcium-regulated secretion; secretory vesicle; neurotransmitter release; presynaptic membrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 16; Pages 42-44; 55pp; English.
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N-PSDB; AAV57558.
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  Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-FEB-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Parkinson's disease; endocrine system; hormonal imbalance; cell division; thought disorder; schizophrenia; degenerative disorder; anaesthesia; rat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-NOV-1998
  206
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SNAP-25; vesicle docking; secretory process; brain; CNS disorder; depression;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of.
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Search completed: November 19, 2002, 17:34:27 Job time : 4.35135 secs

Db 177 QIDRIMEK 184



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Title:
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Listing first 45 summaries
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Maximum DB seq length: 2000000000
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1: /SIDSZ/gcgdata/gc
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| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
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101.524 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMART

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AA015165	AAB15584	AAR86823	AAW30097	AAW30099	AAW30100	AAB15586	ABG69065	AAY44057	AAY44021	ID
Clostridial neurot	Human SNAP-25 N-te	SNAP-25 residues 1	Neurotransmitter s	Neurotransmitter s	Neurotransmitter s	Human SNAP-25 N-te	Human polypeptide	Human SNAP25 (amin	Amino acids 187-20	Description

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
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AAU00259	AAU02636	AA015166	AA015162	AAY44066	AAY44065	AAY44064	AAY44056	AAY44054	AAY44053	AAY44051	AAY44048	AAY44046	AAY44044	AAY44040	AAY44022	AAY44070	AAY44062	AAY44049	AAY44045	AAY44039	AAU02640	AAY44059	AAY44052	AAY44050	AAY44047	AAY44069	AAY44063	AAY44038	AAU00253	AAU00252	AAU00246	AAW43426	AAW79198	AAW30103
Synaptosomal-assoc	\vdash	Clostridial neurot	Clostridial neurot			SNAP25	_	_	Human SNAP25 (amin	SNAP25	SNAP25	SNAP25	SNAP25 (SNAP25	SNAP25	SNAP25	SNAP25		SNAP25		Synaptosomal-assoc		SNAP25	SNAP25			SNAP25	μ.		NARE homologue, s		synapto	House SNAP-25 poly	Synaptosomal assoc

ALIGNMENTS

RESULT 1

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AAY44021
ID AAYY
XX
XX
AC AAYY
AC AAYY
AC AAYY
AC Bnii
XX Flux
KW Flux
KW Flux
KW Hydd
XX Hom
                                                                            Quantitation of type A botulinum toxin
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Claim 1; Column 4; 28pp; English.
                                                                                                                                                                                         WPI; 1999-579939/49.
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                                                                                                                                                                                                                                                                                                                                                                          (USSA ) US SEC OF ARMY.
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RESULT 2
AAY44057
ID AAY4
                  Query Match
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type A botulinum toxin, by determining the proteolytic activity of botulinum neurotoxin type A using fluorescamine detection. Botulinum toxin A has been shown to cleave the synaptosomal neurotransmitter peptide SNAP25 between residues 197-198. The method comprises adding an analogue (e.g. AAY4402-Y44075) of the SNAP25 peptide (AAY44021, amino acids 187-203 of human SNAP25) to a sample containing the botulinum toxin A so that hydrolysis of the peptide is initiated, then stopping hydrolysis of the peptide at different time points; and measuring the amount of hydrolysis at each time point by combining with label capable of detecting free amino groups resulting from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   type A botulinum toxin, by determining the proteolytic activity of botulinum neurotoxin type A using fluorescanine detection. The method comprises adding an analogue (e.g. AAV44022-Y44076) of this peptide (which represents amino acids 187-203 of the human synaptosomal protein SNAP25) to a sample containing the botulinum toxin A so that hydrolysis of the peptide is initiated, then stopping hydrolysis of the peptide at different time points; and measuring the amount of hydrolysis at each time point by combining with a label capable of detecting free amino groups resulting from the hydrolysis. The amount of botulinum toxin A present in the sample is determined by comparing measurements with the amount of label produced from a known concentration of toxin measured under similar conditions. The method is useful for the quantitation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hydrolysis; amino group.
                                                                                                                                                                                                                              Disclosure; Column 9; 28pp; English.
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                                                                                                                                                                                                                                                                 of type A botulinum toxin
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Pred. No.
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RESULT 3
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Matches
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                                                                                    The invention relates to a nucleic acid molecule encoding a botulinum neurotoxin light chain (BoNT LC) serotype A, where the DNA has a sequence that is expressible in a host organism other than Clostridium, or has a total A+T content that is less than about 70% The BoNT LC protein is useful in vaccination against botulism, for eliciting protective immunity in a mammal, for treating dystonias, spasticity, pain, ocular motility, in a mammal, for treating dystonias, spasticity, pain, ocular motility, facial dyskinesias, stiff-person syndrome, bladder dysfunction, segmental myoclonus, hyperkinetic disorders, cosmetic treatment of facial wrinkles, conditions characterised by hyperactivity of the lower motor neuron, and to control autonomic nerve function or tiptose-walking due to stiff muscles common in children with cerebral palsy. The sequences are also useful for screening for botulinum neurotoxin inhibitors. This sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        spasticity; ocular motility; facial dyskinesia; stiff-person syndrome; bladder dysfunction; segmental myoclonus; hyperkinetic disorder; human; cosmetic treatment; facial wrinkle; cerebral palsy; analgesic; relaxant lower motor neuron hyperactivity; autonomic nerve function; muscular;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-OCT-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABG69065 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-NOV-2000; 2000US-246774P
20-JUL-2001; 2001US-0910186
09-AUG-2001; 2001US-311966P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Botulinum neurotoxin light chain; BoNT LC; botulism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human polypeptide C-terminal fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel nucleic acid molecule encoding botulinum neurotoxin light chain serotype A, useful for producing the neurotoxin for vaccination again: botulism, comprises sequence expressible in host other than Clostridi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200236758-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Smith LA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (USSA ) US ARMY MEDICAL RES & MATERIAL COMMAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-NOV-2001; 2001WO-US47230
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 immunostimulant; antibacterial.
                                                             represents a human polypeptide C-terminal fragment,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
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17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jensen M;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 62; 166pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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Pred. No. 9
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                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to new peptides comprising 3-30 contiguous amino acids from the N-terminus of the protein SNAP-25 (synaptosomal-associated protein 25). The peptides AAB15581-B15586 represent examples of the peptides of the invention. The peptides have neuronal exceytosis inhibitory activity and are used for treatment of faccial wrinkles and asymmetry and pathological neuronal exceytosis-mediated pathological disorders and alterations manifested e.g. by spasms and neurological and neurodegenerative disorders.
                            AAW30100 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New peptides containing amino acid sequences from known proteins for treatment of neurological disorders -
                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 17; Page 34; 40pp; Spanish.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Viniegra Bover S,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human SNAP-25 N-terminal peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-APR-1999;
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                                                                                                                                                            SNKTRIDEANQRATKML 19
                                                                                                                                                                                                                                                                          1 Similarity
17; Conserv
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17; Conserv
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Ballester GJ, Planell Cases RM, Ferrer Montiel A
Bover S, Gutierrez Perez LM, Carbonell Castell T;
                                                                                                                                                                                                                                                                                                                                                                                   19 AA;
                                                                                                                                                                                                                                                                          Conservative
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                         peptide;
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Pred. No. 9.4e-08;
                                                                                                                                                                                                                                                                                              Score 83; DB 22;
Pred. No. 1.1e-07;
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ferrer Montiel AV;
                                                                                                                                                                                                                                                                                                                        Length 19;
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RESULT 6
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                                                                                                                                                                                                                                                                                                                                                                                        CC This sequence corresponds to residues 187-206 of the human 25 kD CC synaptosomal associated protein (SNAP-25), and is a inhibitory agent of CC the invention. The agents of the invention inhibit sec:etion of CC neurotransmitter from neuronal cells and is an excitation-secretory uncoupling peptide (I) of at least 20 amino acids (aa) all of which CC correspond substantially to any one of AAW30097-W30102, or more CC generally any (I) that inhibits 50% of catecholamine specially 0.25 microw, or less. (I) are used, as a replacement for Clostridium toxin, to inhibit release of neurotransmitters from synaptic vesicles, specifically CC for reducing muscle spasticity. Also (I) may be labelled to allow in CC vivo imaging of intracellular distribution of (I). Compounds for CC delivering the drug to neural cells provide trarefeted drug delivery, e.g. of substance p to brain tumours for induction of appties to Unlike the neurotranse, (I) are not toxic or immunogenic and are more readily cavailable. Their therapeutic effect lasts for several lays or weeks, so
                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Excitation-secretory uncoupling peptide(s) for inhibiting neuro:transmitter release - used particularly for treating muscle spasticity, and for delivering drugs specifically to neural cells
                                                                  06-APR-1998
                                                                                                                                AAW30099 standard;
                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 14; Page 32; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle; excitation-secretory uncoupling peptide; catecholamine secretion; bowine chromaffin cell; Clostridium toxin; muscle spasticity reduction;
                                Neurotransmitter secretion inhibitor #3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1997-479986/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 synaptosomal associated protein; SNAP-25.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9734620-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Neurotransmitter secretion inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW30100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                  1 SNKTRIDEANQRATKML 17
                                                                                                                                                                                                                 SNKTRIDEANQRATKML 17
                                                                                                                                                                                                                                                                                  17; Conserv
                                                                                                                                                                                                                                                                                                                                                  20 AA;
                                                                                                                                                                                                                                                                                                                                                                               or less frequent treatments are required.
                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97WO-US04393
                                                                                                                                peptide;
                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                  26
                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                  Score 83;
Pred. No.
                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                1.1e-07;
                                                                                                                                                                                                                                                                                                                 DB 18;
                                                                                                                                                                                                                                                                                                              Length 20;
                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                               0;
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Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle;

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CC synaptosomal associated protein (SNAP-25), and is a inhibitory agent of cc the invention. The agents of the invention inhibit secretion of cc neurotransmitter from neuronal cells and is an excitation-secretory cc uncoupling peptide (I) of at least 20 anino acids (aa) all of which cc correspond substantially to any one of AAW3007-W30102, or more cc generally any (I) that inhibits 50% of catecholamine secretion from cc point of the concentration of 10 microw, especially 0.25 cc microw, or less. (I) are used, as a replacement for clostridium toxin, to cc inhibit release of neurotransmitters from synaptic vesicles, specifically cfor reducing muscle spasticity. Also (I) may be labelled to allow in cc unaging of intracellular distribution of (I). Compounds for ce delivering the drug to neural cells provide targeted drug delivery, e.g. co substance P to brain tumours for induction of apoptosis. Unlike the cneurotoxins, (I) are not toxic or immunogenic and are more readily cavailable. Their therapeutic effect lasts for several days or weeks, so lower doses or less frequent treatments are required.
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spasticity reduction; synaptosomal associated protein; SNAP-25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Excitation-secretory uncoupling peptide(s) for inhibiting neuro:transmitter release - used particularly for treating muscle spasticity, and for delivering drugs specifically to neural cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9734620-Al
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 13; Page 31; 61pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-MAR-1996;
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                                                                              Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle; excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spasticity reduction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (REGC ) UNIV
                                                                                                                                                                                  06-APR-1998
                                                                                                                                                                                                                                                 AAW30097 standard; peptide; 37 AA
WO9734620-A1
                                                            synaptosomal associated protein; SNAP-25
                                                                                                                                                 Neurotransmitter secretion inhibitor #1.
                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
nes 17; Conserv
                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                     1 SNKTRIDEANQRATKML 17
                                                                                                                                                                                                                                                                                                                                    SNKTRIDEANQRATKML 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26
                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                                                 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                    Score 83;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                    DB 18;
1.5e-07;
                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 26;
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RESULT 8
AAR86823
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Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               neurotransmitter from neuronal cells and is an excitation-secretory uncoupling peptide (1) of at least 20 amino acids (aa) all of which correspond substantially to any one of AAW30097-W30102, or more generally any (I) that inhibits 50% of catecholamine secretion from bovine chromaffin cells at a concentration of 10 microM, especially 0.25 microM, or less. (I) are used, as a replacement for Clostridium toxin, to inhibit release of neurotransmitters from synaptic vesicles, specifically for reducing muscle spasticity. Also (I) may be labelled to allow in vivo imaging of intracellular distribution of (I). Compounds for delivering the drug to neural cells provide targeted drug delivery, e.g. of substance P to brain tumours for induction of apoptosis. Unlike the neurotoxins, (I) are not toxic or immunogenic and are more readily available. Their therapeutic effect lasts for several days or weeks, so
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              synaptosomal associated protein (SNAP-25), and is a inhibitory the invention. The agents of the invention inhibit secretion of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Excitation-secretory uncoupling peptide(s) for inhibiting neuro:transmitter release - used particularly for treating muscle spasticity, and for delivering drugs specifically to neural cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Montal M;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                VAMP; vesicle-associated membrane protein; SNAP-25; syntaxin; neurotransmitter; neurotoxin; botulinum; botulism; cleavage; substrate; antibody; detection; assay.
                              03-JUN-1994;
                                                                                                                                                                                                                                                SNAP-25 residues 137-206
                                                                                                                                                                                                                                                                            15-AUG-1996
                                                                                                                                                                                                                                                                                                                                       AAR86823 standard; Peptide; 70
(CAMR-) CAMR CENT APPLIED MICROBIOLOGY & RES
                                                            02-JUN-1995;
                                                                                          14-DEC-1995
                                                                                                                      WO9533850-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lower doses or less frequent treatments are required.
                                                                                                                                                                                                                                                                                                                                                                                                                  18
                                                                                                                                                                                                                                                                                                                                                                                                                                             1 SNKTRIDEANQRATKML 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1997-479986/44.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Page 30; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CALIFORNIA
                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               corresponds to residues 170-206 of the human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96US-0013599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97WO-US04393
                              94GB-0011138.
                                                             95WO-GB01279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 83;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 37;
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AUTHORITY.

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RESULT 9
AAB15584
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                       Dermatological; neuroprotective; SNAP-25; synaptosomal-associated neurodegenerative disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The botulinum neurotoxins possess highly specific zinc-endopeptidase activities within their light sub-units. Depending on the neurotoxin type these act to cleave small proteins within the nerve cell which are involved in neurotransmitter release. Antibodies are used in assays which detect cleaved but not uncleaved substrate. Assays for botulinum types A and E use the present sequence as a substrate. The sequence is SNAP-25 protein, residues 137-206.
The invention relates to new peptides comprising 3-30 contiguous amino acids from the N-terminus of the protein SNAP-25 (synaptosomal-associated protein 25). The peptides AAB15581-B15586 represent examples of the peptides of the invention. The peptides have
                                                                                                                     WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Assay for botulinum or tetanus toxin - l substrate which is cleaved by the toxin the cleaved but not uncleaved substrate
                                                            Claim 16;
                                                                                New peptides
treatment of
                                                                                                                                          Perez Paya E;
                                                                                                                                                    Fernandez Ballest
Viniegra Bover S,
                                                                                                                                                                Blanes Mira MC, Llo
Fernandez Ballester
                                                                                                                                                                                                   (LIPO-) LIPOTEC
                                                                                                                                                                                                                          23-APR-1999;
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                                                                                                                                                                                                                                                                                            WO200064932-A1
                                                                                                                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                      Human SNAP-25 N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                             02-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB15584
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB15584 standard; peptide; 86 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SNKTRIDEANQRATKML
                                                                                                                                                                                                                                                                                                                  sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNKTRIDEANQRATKML
                                                                                                                   2001-007091/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 Similarity
17; Conserv
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                                                           Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; ilarity 100.0%; Conservative
                                                                                neurological disorders
                                                                                            containing
                                                                                                                                                                                                                                                2000WO-ES00058
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                                                           32-33;
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                                                                                                                                                                                                   SA.
                                                                                                                                                  Llobregat Hernandez MM, Gil Tebar AI;
ter GJ, Planell Cases RM, Ferrer Montiel
, Gutierrez Perez LM, Carbonell Castell 1
                                                           40pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Quinn
                                                                                           amino acid sequences
                                                                                                                                                                                                                                                                                                                                                                                     peptide
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                                                           Spanish
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 83;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                relaxant; neuronal protein 25; facial
                                                                                                                                                                                                                                                                                                                                                                                      #4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 17;
4.6e-07;
thes 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              y combining test cpd. with and antibody specific for
                                                                                            from
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                                                                                            known
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                                                                                                                                                                                                                                                                                                                                                   wrinkle; asymmetry;
                                                                                           proteins
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                                                                                                                                                                                                                                                                                                                                                  asymmetry;
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RESULT 10
AAO15165
AC AAO15
XX AAO15
XX AAO15
XX Clost
XX WO200
XX Clost
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Best Local
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              botulinum neurotoxin substrate peptides that can serve as immobilised substrates (i.e. bound to a solid phase) in assays for the proteolytic activities of clostridial neurotoxins. The clostridial (including the Clostridium botulinum) neurotoxin substrate peptides are useful for detecting the presence of clostridial neurotoxins in a sample (e.g. food or an environmental sample). The present amino acid sequence represents clostridial neurotoxin substrate peptide of the invention.
                                                                                                                                                 can serve as fluorescence resonant energy transfer as:ay (FRET) or quenched-signal substrates in assays for the proteoly:ic activities of clostridial neurotoxins. The invention further comprises Clostridium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       facial wrinkles and asymmetry and pathological neuronal exocytosis-mediated pathological disorders and alterations manifested e.g. by spasms and neurological and neurodegenerative disorders.
                                                                                                                                                                                                                                                                                           Substrate useful in e.g. clostridial neurotoxin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cleavage-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cleavage-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Clostridial neurotoxin substrate; botulinum neurotoxin substrate; FRET; fluorescence resonant energy transfer assay; quenched-:iignal;
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                                                                                                                                                                                                                                                                                                                                                                                           Schmidt JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Clostridial
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    neuronal exocytosis inhibitory activity and are
                                                                                                                                                                                                            The invention comprises clostridial neurotoxin substrate peptides which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-SEP-2001; 2001WO-US30188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAO15165 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                               (USME-) US MEDICAL RES INST INFECTIOUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-SEP-2000; 2000US-235050P
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17; Conserv
                                                                                                                                                                                                                                                     Page 16;
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type A Clostridium
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type E Clostridium
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Pred.
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                                                                                                                                                                                                                         This sequence represents the human 25 kD synaptosomal associated proteir (SNAP-25), which is an inhibitory agent of the invention. The agents of the invention inhibit secretion of neurotransmitter from neuronal cells and is an excitation-secretory uncoupling peptide (I) of at least 20 amino acids (aa) all of which correspond substantially to any one of AAW30097-W30102, or more generally any (I) that inhibits 50% of catecholamine secretion from bovine chromaffin cells at a concentration of 10 microm, especially 0.25 microm, or less. (I) are used, as a replacement for Clostridium toxin, to inhibit release of neurotransmitters from synaptic vesicles, specifically for reducing muscle spasticity. Also (I) may be labelled to allow in vivo imaging of muscle spasticity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   neuro:transmitter release - used particularly for treating muscle spasticity, and for delivering drugs specifically to neural cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Excitation-secretory uncoupling peptide(s) for inhibiting neuro:transmitter release - used particularly for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1997-479986/44.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           synaptosomal associated protein; SNAP-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            excitation-secretory uncoupling peptide; catecholamine secretion; bovine chromaffin cell; Clostridium toxin; muscle spasticity reduction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Neurotransmitter secretion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synaptosomal associated protein.
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                                                                                                                                           intracellular distribution of (1). Compounds for delivering the drug neural cells provide targeted drug delivery, e.g. of substance P to brain tumours for induction of apoptosis. Unlike the neurotoxins, (1) not toxic or immunogenic and are more readily available. Their therapeutic effect lasts for several days or weeks, so lower doses on the front toxic or immunogenic and are more readily available.
                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 27-28;
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                                                                                                  Sequence
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1 SNKTRIDEANQRATKML 17
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                                                                                                                               frequent treatments are required
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ling peptide; catecholamine secretion;
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Pred. No. 8.2e-07;
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Pred. No.
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                                                     1.6e-06;
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                                                                  Length 206;
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RESULT 12
AAW79198
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                                                                                                                                                                                                                                            This represents a mouse SNAP-25 polypeptide, a component of the protein polypeptides thought to underlie vesicle docking and fusion. The convertion provides rat and human Hrs-2 polypeptides which are ATP-CC invention provides rat and human Hrs-2 polypeptides which are ATP-CC preferring nucleotidase that associate with SNAP-25. For identifying a compound capable of modulating calcium-regulated secretion of secretory consicies, a SNAP-25 polypeptide can be contacted with a Hrs-2 polypeptide, in the presence and absence of a test compound. The effect confit the test compound on the extent of binding between the SNAP-25 and the rest compound on the extent of binding is above a threshold confit its measured effect on the extent of binding is above a threshold confit its measured effect on the extent of binding is above a threshold confit its measured effect on the extent of binding is above a threshold confit its effective if its measured effect on the extent of binding is above a threshold confit its measured effect on the extent of binding is above a threshold confit its effective if its measured effect on the extent of binding is above at the secretory processes, such as neurotransmitter release at the cative zones of presynaptic membranes. Such drugs can be used for treating disorders or conditions of the central nervous system by a confit its preference in the cative and active and active and active active inclining affective disorders of a denversed on disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hrs-2 polypeptide; ATP-preferring nucleotidase; SNAP-25; vesicle docking; calcium-regulated secretion; secretory vesicle; secretory process; brain; neurotransmitter release; presynaptic membrane; CNS disorder; depression; parkinson's disease; endocrine system; hormonal imbalance; cell division; thought disorder; schizophrenia; degenerative disorder; anaesthesia; rat; immune system; antigen processing; immunomodulator; viral processing; central nervous system; vesicular release; affective disorder; human; anti-tumour application; membrane trafficking regulation; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW79198 standard; Protein; 206 AA
                                             of the brain, including affective disorders (e.g. depression), disorders of thought (e.g. schizophrenia) and degenerative disorders ( Parkinson's disease), as well as applications such as anaesthesia. The drugs can also be used therapeutically in other systems such as the endocrine system for treatment of hormonal imbalances, the immune system for intervention in antigen processing, secreted immunomodulators, and viral processing, as well as anti-tumour applications, such as regulation of membrane trafficking during rapid cell division.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated Hrs-2 nucleotidase - used in assays to identify compounds capable of modulating calcium-regulatory secretion secretory vesicles, such as in neurotransmitter release
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DB; AAV57558.
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Query Match

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Length 206;

Sequence

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                                                                                                                                                                                                                                                                                         This amino acid sequence represents the mouse synaptosomal-associated protein of 25 kD (SNAP-25). The invention relates to a method for identifying a compound capable of affecting the binding of a syntaxin-binding protein (SBP), e.g. SNAP-25, alpha-SNAP, n-secl or VAMP, to syntaxin. The method comprises measuring the effect of the test compound on the extent of binding between the SBP and the SBP-binding site on syntaxin. The method can be used for identifying drugs capable after the syntaxin. The method can be used for identifying drugs capable
                                                                                                                                                                                                                                                                                                                                                                                                                                      Screening assay for modulators of syntaxin binding - using peptide comprising binding site of syntaxin, for identifying drugs useful for treating CNS disorders, neuro-degenerative diseases, etc
AAU00246
                          AAU00246 standard; Protein; 206 AA
                                                                                                                                                                                                                                        of inhibiting or stimulating neurotransmitter release at the active zones of presynaptic membranes, which may be useful for treating CNS disorders, affective or psychotic disorders, neurodegenerative diseases, hormonal or immunological disorders or tumours.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1998-031743/03
N-PSDB; AAV01554.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Binding domain; mouse; syntaxin; synaptosomal-associated protein; CNS; neurotransmitter; presynaptic membrane; central nervous system; tumour; neurodegenerative disease; hormonal disorder; immunological disorder.
                                                                                                                                                                                                              Sequence
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                                                                                                            1 SNKTRIDEANQRATKML 17
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Pred. No. 1.6e-06;
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CC The sequence represents the amino acid sequence of synaptosomal-
CC associated protein, SNAP25. The sequence was used to
CC create SNAP25 double/single point mutants and C-terminal deletion
CC mutants used in a new method of treating a patient suffering from
CC poisoning or at risk of poisoning by a clostridial toxin, comprising
CC supplying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein)
CC attachment protein receptor) to a cell of the patient, where the SNARE is
CC capable of inhibiting the toxin (toxin-resistant SNARE) and/or is
CC capable of inhibiting the toxin (toxin-inhibitory SNARE). The protein can
CC dependent exocytosis from a cell capable of performing SNARE or an inhibitory SNARE to the cell of the patient. The toxin
CC exocytosis, comprises supplying a fragment, variant, fusion or derivative
CC of a SNARE or an inhibitory SNARE to the cell of the patient. The toxin
CC resistant or toxin inhibitory SNARE or a recombinant polynucleotide
CC encoding the SNARE is useful in the manufacture of a medicament for the
CC variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a
CC recombinant polynucleotide encoding either of these SNARE polypeptides
CC variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a
CC recombinant polynucleotide encoding either of these SNARE polypeptides
CC apable of performing SNARE-dependent exocytosis. The nethod of treatment
CC capable of performing SNARE-dependent exocytosis. The nethod of treatment
CC is relatively fast, thus alleviating the symptoms when most severe and
CC capable of performing SNARE or of symptoms when most severe and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-AUG-2000; 2000WO-GB03196
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-MAR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNAP-25; poisoning; clostoxin-inhibitory SNARE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-SEP-2001
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                                    patient out
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Peptide bond susceptible to cleavage
    clostridial neurotoxin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                clostridial toxin; SNARE; toxin-resistant SNARE; ARE; botulism; tetanus; SNARE-dependent exocytosis;
                                      of,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Peptide bonds susceptible to
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                                      critical state
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Query Match Best Local Matches

Similarity 17; Conserv

Conservative

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100.0%;

Score 83; DB 22; Pred. No. 1.6e-06; Mismatches

Length 206; Indels

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Gaps

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Gaps

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RESULT 15
AAU00252
B
                                                    The sequence represents the amino acid sequence of SNARE homologue, co synaptosomal-associated membrane protein, hSNAP25a, used during analysis co f SNAP-25. SNAP-25 mutants were used in a new method of treating a co fathent suffering from poisoning or at risk of poisoning by a clostridial country, comprising supplying a SNARE (soluble (N-ethylmaleimide-sensitive country) protein)-attachment protein receptor) to a cell of the patient, comprising supplying a SNARE (soluble (N-ethylmaleimide-sensitive country) and/or is capable of inhibiting the toxin (toxin-resistant country). The protein can be used in a method of treating a patient in need confinition of SNARE-dependent exocytosis from a cell capable of confinition of snare-dependent exocytosis from a cell capable of confinition or derivative of a SNARE or an inhibitory SNARE to the coll of the patient. The toxin resistant or toxin inhibitory SNARE to the coll of the patient. The toxin resistant or toxin inhibitory SNARE or a medicament for the treatment of a patient suffering from companiant polynucleotide encoding the SNARE is useful in the poisoning or at risk of poisoning by clostridial toxin, e.g. from consoning solutions or tetanus. The fragment, variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding cither of these SNARE polypeptides are useful in the manufacture of dependent exocytosis from a cell capable of performing SNARE-dependent cocytosis. The method of treatment is relatively fast, thus consoning the symptoms when most severe and taking the patient out of alleviating the symptoms when most severe and taking the patient out of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosi synaptosomal-associated protein; hSNAP25a; human; N-ethylmaleimide-sensitive fusion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SNARE homologue, synaptosomal-associated protein, hSNAP25a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU00252 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Fig 8; 131pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Treating a patient suffering from poisoning or at risk of poisoning by a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAS00369
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  Sequence
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                                           critical state.
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    206 AA;
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Query Match Best Local Similarity

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Score 83; Pred. No.

; DB 22; . 1.6e-06;

Length 206

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Search completed: November 19, Job time: 22.3125 secs
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GenCore version 5.1.3 Copyright (c) 1993 - 2002 Compugen Ltd

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Gapop 10.0 , Gapext 0.5
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SUMMARIES

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AAW30103	AAU00265	AAU00264 AAU02637	AAU00263	AAU00255	AA015166	AA015165	AAR86823	ID		
Synaptosomal assoc	Synaptosomal-assoc	Synaptosomal-assoc Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	Clostridial neurot	Clostridial neurot	SNAP-25 residues 1	Description		

Assay for botulinum or tetanus toxin - by combining :est cpd. with substrate which is cleaved by the toxin, and antibod? specific for

45	44	43	42	41	40	39	38	37	36	35	34	ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	
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247	247	247	165	165	37	20	714	546	513	213	211	211	61	212	19	49	86	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	
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AAG39336 .	AAG23785	AAG09027	AAG39337	AAG09028	AAW30097	AAW30098	AAG32994	AAG32995	AAG32996	AAB57140	AAU00251	ABG02947	AAU00247	ABB64447	AAU00248	AAM57386	AAB15584	AAU02640	AAU02639	AAU02638	AAU02171	AAU00266	AAU00262	AAU00261	AAU00260	AAU00259	AAU00258	AAU00257	AAU00256	5	AAU00252	AAU00246	AAW43426	AAW79198	
Arabidopsis thalia	thal	thal	thal	H		۳.	Arabidopsis thalia		Arabidopsis thalia	prostate ca		Novel human diagno	Synaptosomal-assoc	Drosophila melanog	Synaptosomal-assoc	brain ex	Human SNAP-25 N-te	Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	ynaptosomal-	Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal-assoc	Synaptosomal assoc	homologue,	SNARE homologue, s	_	synaptos	Mouse SNAP-25 poly	

ALIGNMENTS

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AAR86823
                                                                                                                                                                                                                                                                                     RESULT 1
                                                                                                                                                                           VAMP; vesicle-associated membrane protein; SNAP-25; :;yntaxin; neurotransmitter; neurotoxin; botulinum; botulism; c.eavage; substrate; antibody; detection; assay.
                        WPI; 1996-040249/04
                                                                                                                                                                                                                                                 AAR86823;
                                                           (CAMR-) CAMR CENT APPLIED MICROBIOLOGY & (MICR-) MICROBIOLOGICAL RES AUTHORITY.
                                                                                     03-JUN-1994;
                                                                                                      02-JUN-1995;
                                                                                                                        14-DEC-1995
                                                                                                                                                           Synthetic.
                                                                                                                                                                                                              SNAP-25 residues 137-206.
                                                                                                                                                                                                                               15-AUG-1996 (first entry)
                                                                                                                                                                                                                                                                  AAR86823 standard; Peptide; 70 AA.
                                          Hallis B,
                                                                                                                                         WO9533850-A1
                                          James
                                                                                     94GB-0011138.
                                                                                                      95WO-GB01279
                                         BAF,
                                         Quinn CP,
                                         Shone CC;
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RESULT 2
AAO15165
ID AAO15165
AC AAO1
XX AAO1
DT 02-S
XX Clos
KW Clos
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clostridial neurotoxin substrate; botulinum neurotoxin substrate; FRET; fluorescence resonant energy transfer assay; quenched-signal; clostridial neurotoxin detection; food.
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                     The invention comprises clostridial neurotoxin substrate can serve as fluorescence resonant energy transfer assay quenched-signal substrates in assays for the proteolytic clostridial neurotoxins. The invention further comprises
                                                                                                                                                                                                                                                           WPI;
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Pred. No. 3.1e-16;
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RESULT 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   substrates (i.e. bound to a solid phase) activities of clostridial neurotoxins. The state of the
                                                                                                                              The invention comprises clostridial neurotoxin substrate peptides which can serve as fluorescence resonant energy transfer assay (FRET) or quenched signal substrates in assays for the proteolytic activities of clostridial neurotoxins. The invention further comprises clostridium botulinum neurotoxin substrate peptides that can serve as immobilised substrates (i.e. bound to a solid phase) in assays for the proteolytic activities of clostridial neurotoxins. The clostridial (including the Clostridium botulinum) neurotoxin substrate peptides are useful for detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of clostridial neurotoxins in a sample (e.g. food detecting the presence of cl
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                                                                or an environmental sample). The present amino acid sequence represents clostridial neurotoxin substrate peptide of the invention.
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trate peptides are useful for

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Sequence

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CC The sequence represents the amino acid sequence of synaptosomal-
CC associated protein, SNAP25, C-terminal deletion 1-198, used in a new
CC method of treating a patient suffering from polsoning or at risk of
CC poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
CC (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor)
CC to a cell of the patient, where the SNARE is resistant to proteolysis by
CC treating a patient in need of inhibition of sNARE-dependent exocytosis
CC treating a patient in need of inhibition of SNARE-dependent exocytosis
CC trom a cell capable of performing SNARE-dependent exocytosis
CC supplying a fragment, variant, fusion or derivative of a SNARE or an
CC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin
CC suffering from poisoning or at risk of poisoning by clostridial toxin,
CC e.g. from botulism or tetanus. The fragment, variant, fusion or
CC derivative of a SNARE or of an inhibitory SNARE, or a recombinant
CC polynucleotide encoding either of these SNARE, or a recombinant
CC polynucleotide encoding either of these SNARE, or a recombinant
CC polynucleotide encoding either of these SNARE polypeptides are useful in
CC the manufacture of medicament for the treatment of a patient in need of
CC inhibition of SNARE-dependent exocytosis. The method of treatment is
CC vale; The bressent sequence is not shown in the accidiant but in
CC taking the patient out of critical state.
CC Note: The company of the patient in the continual state.
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Best Local
taking un
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   toxin-inhibitory SNARE; botulism; tetanus; SNARE-depend synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200118038-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page - ; 131pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-226739/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NSF-attachment protein receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        poisoning; clostridial toxin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O'Sullivan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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Pred. No. 5.6e-16;
Mismatches 0;
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 shown in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SNARE;
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 the specification but is
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RESULT 5
AAU00263
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  cc associated protein, SNAP25, mutant 1-199(R198T), used in a new method of treating a patient suffering from poisoning or at risk of CC method of treating a patient toxin, comprising supply;ng a SNARE (soluble CC (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) CC to a cell of the patient, where the SNARE is resistint to proteolysis by CC the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the CC toxin (toxin-inhibitory SNARE). The protein can be used in a method of CC treating a patient in need of inhibition of SNARE-dependent exocytosis crom a cell capable of performing SNARE-dependent exocytosis, comprises CC supplying a fragment, variant, fusion or derivative of a SNARE or an an CCC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin CC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin CC inhibitory SNARE to a recombinant polynucleotide envoding the SNARE is CC useful in the manufacture of a medicament for the treatment of a patient CC e.g. from botulism or tetanus. The fragment, varian; fusion or derivative of a SNARE or an inhibitory SNARE or a far inhibitory SNARE or a state of a scane of a medicament for the treatment of a patient CC e.g. from botulism or tetanus. The fragment, varian; fusion or derivative of a snare or of a canare or of a can
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Best Local :
                                                                                                                                                                                                                                                                                                  The sequence represents the amino acid sequence of synaptosomal-associated protein, SNAP25, mutant 1-199(R198T), used in a new method of treating a patient suffering from poisoning or at risk of
                                                                                                                                                                                                                                                                                                                                                                                                                                             Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  toxin-inhibitory SNARE; botulism; tetanus; SNARE synaptosomal-associated protein; mouse; mutant; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Page - ; 131pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-226739/23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O'Sullivan
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Pred. No. 1e-15;
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rne sequence represents the amino acid sequence of synaptosomal-associated protein, SNAP25, mutant 1-200(R198T), used in a new method of treating a patient suffering from poisoning or at risk of poisoning by a clostridial toxin, comprising supplying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) to a cell of the patient, where the SNARE is resistant to proteolysis by the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the toxin (toxin-inhibitory SNARE). The protein can be used in a method of treating a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of performing SNARE-dependent exocytosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU00264 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synaptosomal-associated protein, SNAP25, mutant 1-200(R198T).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU00264;
                                                                                                                                                                                                                 Treating a patient suffering from poisoning or a clostridial toxin, e.g. botulism, comprises a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                      18-AUG-2000; 2000WO-GB03196
                                                                                                                                                                                                                                                                                                                                                                                                                                     15-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200118038-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            soluble
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            156 IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 186
                                                                                                                                                                                                                                                                              WPI;
                                                                                                                                                                                                                                                                                                           Dolly
                                                                                                                                                                                                                                                                                                                                        (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                                                                                                                                                                                                                                                                                                                                         20-AUG-1999;
                                                                                                                                                                                   Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the patient out of critical state.
The present sequence is not shown in the specification but is
d from the mouse SNAP-25 sequence given in figure 8 (see AAUO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                   1; Page - ; 131pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NSF-attachment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199
                                                                                                                                                                                                                                                                                                             O'Sullivan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
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                                                                                                                                                                                                                                                                                                                                                                       9905-0149993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      clostridial toxin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                               GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Wild-type Arg
                                                                                                                                                                                                                                                                                                               Mohammed N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 158; DB 2
Pred. No. 1e-15;
; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    substituted by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNARE; toxin-resistant SNARE;
                                                                                                                                                                                                                                                                                                               Foran
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNARE-dependent exocytosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                    c at risk of poisoning administering a
                                                                                                                                                                                                                                                                                                               PG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           199;
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RESULT 7
AAU02637
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Best I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       useful in the manufacture of a medicament for the treatment of a patier suffering from poisoning or at risk of poisoning by clostridial toxin, e.g. from botulism or tetanus. The fragment, variant, fusion or derivative of a SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding either of these SNARE polypeptides are useful if the manufacture of medicament for the treatment of a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of inhibition of SNARE-dependent exocytosis. The method of treatment is relatively fast, thus alleviating the symptoms when most severe and taking the patient out of critical state.

Note: The present sequence is not shown in the specification but is derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00244)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               supplying a fragment, variant, fusion or derivative of a SNARE inhibitory SNARE to the cell of the patient. The toxin resistation between the companion of the patient of the companion of the inhibitory SNARE or a recombinant polynucleotide encoding the
                                                                                                                                                                                                                                                                                                                                                                                                                toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosis; synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmalelmide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synaptosomal-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU02637;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                               Mus
                                                                                                                                                                                                                                                                                                                                                                                                        soluble NSF-attachment protein receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNAP-25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU02637 standard; Protein; 201
                                                                           Treating a patient suffering from poisoning a clostridial toxin, e.g. botulism, comprise toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                        WO200118038-A2
                                                                                                                                                                                                                                                                                                                                          Кеy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              156
                                                    Example 1;
                                                                                                                                                          Dolly
                                                                                                                                                                                   (IMCO-) IMPERIAL COLLEGE INNOVATIONS
                                                                                                                                                                                                            20-AUG-1999;
                                                                                                                                                                                                                                     18-AUG-2000; 2000WO-GB03196
                                                                                                                                                                                                                                                               15-MAR-2001
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                                                                                                                                 2001-226739/23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                        poisoning; clostridial toxin; SNARE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                          O'Sullivan
                                                   Page - ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA;
                                                                                                                                                                                                              9905-0149993
                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                 /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                    131pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                          GA,
                                                                                                                                                                                                                                                                                                                 "Wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein,
                                                                                                                                                             Mohammed
                                                    English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 158; DB 22;
Pred. No. 1.1e-15;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SNAP25, mutant 1-201(R198T)
                                                                                                                                                                                                                                                                                                                   Arg
                                                                            comprises administering a SNARE -
                                                                                                                                                             z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
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                                                                                                                                                                                                                                                                                                                   substituted by
                                                                                                                                                             Foran
                                                                                                                                                                                                                                                                                                                                                                                                                                                             toxin-resistant SNARE;
                                                                                                                                                             PG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     resistant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SNARE or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of a patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNARE is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU00246)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of
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method of treating a

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patient suffering

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poisoning

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risk

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The sequence represents the amino acid sequence of synaptosomal-associated protein, SNAP25, mutant 1-201(R1987), used in a new

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RESULT 8
AAU00265
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C Note: The present sequence is not shown in the specification but is derived from the mouse SNAP-25 sequence given in figure 8 (see AAU00246).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosi synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          poisoning by a clostridial toxin, comprising supplying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) to a cell of the patient, where the SNARE is resistant to proteolysis by the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the toxin (toxin-inhibitory SNARE). The protein can be used in a method of treating a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of performing SNARE-dependent exocytosis, comprises
                                                                                           WPI; 2001-226739/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synaptosomal-associated protein, SNAP25, mutant 1-202(R198T).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU00265 standard; Protein;
                                                                                                                                                                                                                                                                          20-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                            15-MAR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200118038-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
                                                                                                                                                                                                                                                                                                                              18-AUG-2000; 2000WO-GB03196
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NSF-attachment protein receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                      O'Sullivan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                       99US-0149993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Wild-type Arg substituted by Thr'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                   GA,
                                                                                                                                                   Mohammed N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            202 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 158; DB 22;
Pred. No. 1.1e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                   Foran
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNARE-dependent exocytosis;
tant; mutein;
                                                                                                                                                   PG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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(IMCO-) IMPERIAL COLLEGE INNOVATIONS

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CC (N-ethylmalelanide-sensitive fusion protein) attachment protein receptor)
CC to a cell of the patient, where the SNARE is resistant to proteolysis by
CC the toxin (toxin-resistant SNARE) and/or is capable o; inhibiting the
CC toxin (toxin-inhibitory SNARE). The protein can be used in a method of
CC treating a patient in need of inhibition of SNARE-dependent exocytosis
CC form a cell capable of performing SNARE-dependent exocytosis, comprises
CC supplying a fragment, variant, fusion or derivative on a SNARE or an
CC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin
CC inhibitory SNARE or a recombinant polynucleotide encoding the SNARE is
CC useful in the manufacture of a medicament for the trentment of a patient
CC e.g. from botulism or tetanus. The fragment, variant, fusion or
CC derivative of a SNARE or of an inhibitory SNARE, or a recombinant
CC polynucleotide encoding either of these SNARE polypepides are useful in
CC inhibition of SNARE-dependent exocytosis. The method of :reatment is
CC relatively fast, thus alleviating the symptoms when must severe and
CC taking the patient out of critical state.
CC Marived from the mouse snap-35 sequence given in figure 8 (see AAU00246).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                             Mus sp.
Synthetic.
                               20-AUG-1999;
                                                                  18-AUG-2000;
                                                                                                     15-MAR-2001.
                                                                                                                                        WO200118038-A2
                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                             toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosis; synaptosomal-associated protein; mouse; mutant; mutein; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                   SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE;
                                                                                                                                                                                                                                                                                                                                                                                                    Synaptosomal-associated protein, SNAP25, mutant 1-203;R198T).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU02636 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                associated protein, SNAP25, mutant 1-202(R198T), used in a new method of treating a patient suffering from poisoning or at risk of poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; Page - ; 131pp; English.
                                                                                                                                                                                                                                                                                                  soluble
                                                                                                                                                                                                                                                                                                                                                                                                                                             12-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU02636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 toxin-resistant or toxin-inhibitory SNARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     156 IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence represents the amino acid sequence of synaptosomal-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               he present sequence is not shown in the specification but is from the mouse SNAP-25 sequence given in figure 8 (see AAU0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                 NSF-attachment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               202
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                                                                  2000WO-GB03196
                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                               9905-0149993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AA;
                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                       /note= "Wild-type Arg substituted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 158; 100.0%; Pred. No. 1
                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                             receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 22;
1.1e-15;
es 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Induls
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            202;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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RESULT 10
AAW30103
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CC associated protein, SNAP25, mutant 1-203 R1987), used in a new
CC method of treating a patient suffering from poisoning or at risk of
CC poisoning by a clostridial toxin, comprising supplying a SNARE (soluble
CC (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor)
CC to a cell of the patient, where the SNARE is resistant to proteolysis by
CC treating a patient in need of inhibition of snare-dependent exocytosis
CC treating a patient in need of inhibition of SNARE-dependent exocytosis
CC treating a patient, variant, fusion or derivative of a SNARE or an
CC inhibitory SNARE to the cell of the patient. The toxin resistant or toxin
CC useful in the manufacture of a medicament for the treatment of a patient
CC e.g. from botulism or tettanus. The fragment, variant, fusion or
CC derivative of a SNARE or of an inhibitory SNARE, or a recombinant
CC undidition of SNARE or of an inhibitory SNARE, or a recombinant
CC derivative of medicament for the treatment of a patient
CC the manufacture of medicament for the treatment of a patient
CC inhibition of SNARE or of an inhibitory SNARE, or a recombinant
CC derivative of medicament for the treatment of a patient
CC inhibition of SNARE-dependent exocytosis from a cell capable of
CC inhibition of SNARE-dependent exocytosis from a cell capable of
CC relatively fast. thus alleviating the symptoms when most severe and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
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ACC XXX ACC XX
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             taking the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               relatively fast, thus alleviating the symptoms when most severe and taking the patient out of critical state.

Note: The present sequence is not shown in the specification but is derived from the mouse SNAP-25 sequence given in figure 8 (see AAU0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             excitation-secretory uncoupling peptide; catecholamine secretion;
bovine chromaffin cell; Clostridium toxin; muscle spasticity reduction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                         18-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              synaptosomal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Neurotransmitter secretion; inhibitor; neuronal cell; synaptic vesicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synaptosomal associated protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW30103 standard; peptide;
                                                                                                                                  18-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        156 IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    203 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
llarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   associated
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                                                                                                                                      97WO-US04393
                                              96US-0013599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein; SNAP-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mohammed
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  206 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 158; DB 2
Pred. No. 1.1e-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     203;
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RESULT 11
AAW79198
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence represents the human 25 kD synaptosomal associated protein (SNAP-25), which is an inhibitory agent of the invention. The agents of the invention inhibit secretion of neurotransmitter from neuronal cells and is an excitation-secretory uncoupling peptide (I) of at least 20 cand is an excitation-secretory uncoupling peptide (I) of at least 20 catecholamine secretion from bovine chromaffin cells at a concentration of 10 microM, especially 0.25 microM, or less. (I) are used, as a creplacement for Clostridium toxin, to inhibit release of replacement for Clostridium toxin, to inhibit release of courotransmitters from synaptic vesicles, specifically for reducing muscle spasticity. Also (I) may be labelled to allow in vivo imaging of intracellular distribution of (I). Compounds for delivering the drug to neural cells provide targeted drug delivery, e.g. of substance P to brain tumours for induction of apoptosis. Unlike the neurotoxins, (I) are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  {\tt neuro:} {\tt transmitter} release - used particularly for treating muscle spasticity, and for delivering drugs specifically to neural cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Excitation-secretory uncoupling peptide(s) for inhibiting neuro-transmitter release - used particularly for treatin
                                                                                                                                                                                                                           Hrs-2 polypeptide; ATP-preferring nucleotidase; SNAP-25; vesicle dock; calcium-regulated secretion; secretory vesicle; secretory process; brancurotransmitter release; presynaptic membrane; CNS disorder; depressi Parkinson's disease; endocrine system; hormonal imbalance; cell divisi thought disorder; schizophrenia; degenerative disorder; annesthesia; immune system; antigen processing; immune system; antigen processing; immune system; vesicular release; affective disorder; human; anti-tumour application; membrane trafficking regulation; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 27-28; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-479986/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW79198 standard; Protein; 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          not toxic or immunogenic and are more readily available. Their therapeutic effect lasts for several days or weeks, so lower deless frequent treatments are required.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Montal M;
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                                                                                                                                                                                                  Mus
                                                                                                                                                                                                                                                                                                                                                                                Mouse
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                                                                                                                                 03-SEP-1998
                                                                                                                                                                 W09838210-A2
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                                                                26-FEB-1997;
                                                                                                 26-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
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                                                                                                                                                                                                                                                                                                                                                                                SNAP-25
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                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                              polypeptide
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                                                                  97US-0039159
                                                                                                 98WO-US03789
                                  STANFORD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
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                                   JUNIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 158; DB 18; Pred. No. 1.1e-15; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                               SNAP-25; vesicle docking;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
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RESULT 12
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Best Local S
Matches 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          polypeptide, in the presence and absence of a test compound. The effect of the test compound on the extent of binding between the SNAP-25 and Hrs-2 polypeptides are measured and a compound is identified as effective if its measured effect on the extent of binding is above a threshold level. The products can be used for identifying drugs capable of affecting secretory processes, such as neurotransmitter release at the active zones of presynaptic membranes. Such drugs can be used for treating disorders or conditions of the central nervous system by selectively enhancing or inhibiting vesicular release in specific areas of the brain, including affective disorders (e.g. depression), disorders of thought (e.g. schizophrenia) and degenerative disorders ( Parkinson's disease), as well as applications such as anaesthesia. The drugs can also be used therapeutically in other systems such as the endocrine system for treatment of hormonal imbalances, the immune system for
                                                                                                                                                                                                                                                                Binding domain; mouse; syntaxin; synaptosomal-associated protein; CNS; neurotransmitter; presynaptic membrane; central nervous system; tumour; neurodegenerative disease; hormonal disorder; immunological disorder.
                                                                                                                                                              02-DEC-1997
                                                                                                                                                                                                US5693476-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW43426 standard; Protein; 206 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         intervention in antigen processing, secreted immunomodulators, and viral processing, as well as anti-tumour applications, such as regulation of membrane trafficking during rapid cell division.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   polypeptides thought to underlie vesicle docking and fusion. The invention provides rat and human Hrs-2 polypeptides which are ATP-preferring nucleotidase that associate with SNAP-25. For identifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 16; Pages 42-44; 55pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated Hrs-2 nucleotidase - used in assays to identify compounds capable of modulating calcium-regulatory secretion secretory vesicles, such as in neurotransmitter release
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-481140/41.
N-PSDB; AAV57558.
                                                                                        24-FEB-1995;
                                                                                                                          24-FEB-1995;
                                                                                                                                                                                                                                                                                                                                        Mouse synaptosomal-associated protein-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   compound capable of modulating calcium-regulated secretion of secretory vesicles, a SNAP-25 polypeptide can be contacted with a Hrs-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This represents a mouse SNAP-25 polypeptide,
                                                  (STRD ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                  LELAND STANFORD JUNIOR
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                                                                                    95US-0393985
                                                                                                                          95US-0393985
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 158; DB 19;
Pred. No. 1.1e-15;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAU00246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This amino acid sequence represents the mouse synaptosomal-associated protein of 25 kD (SNAP-25). The invention relates to a method for identifying a compound capable of affecting the binding of a syntaxin-binding protein (SBP), e.g. SNAP-25, alpha-SNAP, n-secl or VAMP, to syntaxin. The method comprises measuring the effect of the test compound on the extent of binding between the SBP and the SBP-binding site on syntaxin. The method can be used for identifying drugs capable of inhibiting or stimulating neurotransmitter release at the active zones of inhibiting or stimulating neurotransmitter release at the active zones of presynaptic membranes, which may be useful for treating CNS disorders, affective or psychotic disorders, neurodegenerative diseases, hormonal or immunological disorders or tumours.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Screening assay for modulators of syntaxin binding - using peptide comprising binding site of syntaxin, for identifying irugs useful for treating CNS disorders, neuro-degenerative diseases, etc
             WPI; 2001-226739/23
                                       Dolly JO,
                                                                                                                                                          15-MAR-2001.
                                                                                                                                                                                      WO200118038-A2
                                                                                                                                                                                                                                                Cleavage-site
                                                                                                                                                                                                                                                                                         Cleavage-site
                                                                                                                                                                                                                                                                                                        Key
                                                                                                                                                                                                                                                                                                                                                 Mus sp.
                                                                                                                                                                                                                                                                                                                                                                               soluble
                                                                                                                                                                                                                                                                                                                                                                                         toxin-inhibitory SNARE; botulism; tetanus; synaptosomal-associated protein; mutagenic; N-ethylmaleimide-sensitive fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synaptosomal-associated protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-031743/03
                                                                                                  20-AUG-1999;
                                                                                                                             18-AUG-2000; 2000WO-GB03196
                                                                                                                                                                                                                                                                                                                                                                                                                                        SNAP-25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU00246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU00246 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Column 67-72; 57pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAV01554.
                                                                    (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                            NSF-attachment protein receptor
                                                                                                                                                                                                                                                                                                                                                                                                                        poisoning; clostridial toxin; SNARE; toxin-resistant
nibitory SNARE; botulism; tetanus; SNARE-depandent exc
                                        O'Sullivan GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              206 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
clarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                  99US-0149993
                                                                                                                                                                                                                                                197..198
                                                                                                                                                                                                                                                                                         Location/Qualifiers 180..181
                                                                                                                                                                                                                                                          /note= "Peptide bond susceptible to «leavage clostridial neurotoxin"
                                                                                                                                                                                                                                 /note-
                                                                                                                                                                                                                "Peptide bonds susceptible clostridial neurotoxin"
                                        Mohammed N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 158; DB 17, Pred. No. 1.1e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNAP25
                                        Foran PG;
                                                                                                                                                                                                                                                                                                                                                                                                                     SNARE-dependent exocytosis;
                                                                                                                                                                                                                                                                                                                                                                                                          PCR
                                                                                                                                                                                                                               to cleavage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Incels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                     SNARE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
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create SNAP-25 double/single point mutants and C-terminal deletion comutants used in a new method of treating a patient suffering from composition or at risk of poisoning by a clostridial toxin, comprising complying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein) comprising complying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein) comprisition comprisition of the patient, where the SNARE is compable of inhibiting the toxin (toxin-resistant SNARE) and/or is capable of inhibiting the toxin (toxin-inhibitory SNARE) and/or is capable of inhibiting the toxin (toxin-inhibitory SNARE). The protein can be used in a method of treating a patient in need of inhibition of SNARE comprises supplying a fragment, variant, fusion or derivative of a SNARE or an inhibitory SNARE to the cell of the patient. The toxin cesistant or toxin inhibitory SNARE to the cell of the patient. The toxin cesistant or toxin inhibitory SNARE to the cell of the patient. The toxin comprises supplying a fragment, are all of the patient for the conding the SNARE is useful in the manufacture of a medicament for the crasmant of a patient of suffering from poisoning or at risk of poisoning conditions are combinant polynucleotide encoding the supplying encoding the supplying a fragment for the treatment of a patient in need of inhibition of SNARE or of an inhibitory SNARE, or a recombinant polynucleotide encoding either of these SNARE polynpetides are useful in the manufacture of medicament for the treatment of a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of performing SNARE-dependent exocytosis. The method of treatment of is relatively fast, thus alleviating the symptoms when most severe and capable of performing SNARE-dependent exocytosis. The method of treatment of a patient out of critical state.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
AAU00252
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LE STANDER STA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     associated protein, SNAP25. create SNAP-25 double/single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The sequence represents the amino acid sequence of synaptosomal-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Fig 8; 131pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytos1-synaptosomal-associated protein; hSNAP25a; human; N-ethylmaleimide-sensitive fusion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                       15-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                           WO200118038-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             soluble NSF-attachment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SNARE homologue, synaptosomal-associated protein, hSNAP25a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU00252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU00252 standard;
                                                                 Dolly JO,
                                                                                                                                                                                                             20-AUG-1999;
                                                                                                                                                                                                                                                                                  18-AUG-2000;
                                                                                                                                         (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 186
2001-226739/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                        O'Sullivan GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           206 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                      2000WO-GB03196
                                                                                                                                                                                                                 99US-0149993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                        Mohammed N, Foran
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The sequence was used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 158; DB 22;
Pred. No. 1.1e-15;
Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             exocytosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
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Content strieting from porsoning of a SNARE (soluble (N-ethylmaleinde-sensitive fusion protein)-attachment protein receptor) to a cell of the patient, comprising supplying a SNARE (soluble (N-ethylmaleinde-sensitive condition)-attachment protein receptor) to a cell of the patient, condition or stratchment protein receptor) to a cell of the patient of conditions and the toxin (toxin-inhibitory snare). The protein can be used in a method of treating a patient in need condition of SNARE-dependent exocytosis from a cell capable of conditions snare-dependent exocytosis from a cell capable of conditions snare to exocytosis, comprises supplying a fragment, confirming snare-dependent exocytosis, comprises supplying a fragment, cell of the patient. The toxin resistant or toxin inhibitory snare to the cell of the patient. The toxin resistant or toxin inhibitory snare or a compliant polynucleotide encoding the SNARE is useful in the confirming or at risk of poisoning by clostridial toxin, e.g. from constitution or tetanus. The fragment, variant, fusion or derivative of a snare or of an inhibitory snare, or a recombinant polynucleotide encoding ceither of these snare polypeptides are useful in the manufacture of dependent exocytosis from a cell capable of performing snare-dependent exocytosis from a cell capable of performing snare-dependent control to the symptoms when most severe and taking the patient out of critical state.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Treating a patient suffering from poisoning or at risk of poisoning a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               synaptosomal-associated membrane protein, hSNAP25a, used during analysis of SNAP-25. SNAP-25 mutants were used in a new method of treating a patient suffering from poisoning or at risk of poisoning by a clostridial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 8; 131pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; AAS00369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                         toxin-inhibitory SNARE; botulism; tetanus; synaptosomal-associated protein; hSNAP25b;
                                                                                                                                                                                                                                                                                                                               SNAP-25; poisoning; clostridial toxin; SNARE; toxin-resistant SNARE; toxin-inhibitory SNARE; botulism; tetanus; SNARE-dependent exocytosi
                                                                                                                                                                                                                                                                                                                                                                                     SNARE homologue, synaptosomal-associated protein, hSNAP25b
                                                                                                                                                                                                                                                                                                                                                                                                                               12-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU00253;
WPI; 2001-226739/23
                                                                                                                                                                                                                                     WO200118038-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAU00253 standard;
                                    Dolly JO,
                                                                          (IMCO-) IMPERIAL COLLEGE INNOVATIONS
                                                                                                                  20-AUG-1999;
                                                                                                                                                        18-AUG-2000; 2000WO-GB03196
                                                                                                                                                                                              15-MAR-2001
                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                      O'Sullivan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
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                                                                                                                  99US-0149993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                      GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the amino acid sequence of SNARE homologue, membrane protein, hSNAP25a, used during and
                                      Mohammed N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 158; DB 22;
Pred. No. 1.1e-15;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                              LTD.
                                          Foran PG
                                                                                                                                                                                                                                                                                                                                   SNARE-dependent exocytosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           206;
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0

N-PSDB; AAS00370.

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Search completed: November 19, 2002, 17:39:13 Job time: 40.6875 secs
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                                                                                                                                                                                                                                                                                                               The sequence represents the amino acid sequence of SNARE homologue, CC synaptosomal-associated membrane protein, hSNAP25b, used during analysis of SNAP-25. SNAP-25 mutants were used in a new method of treating a CC patient suffering from poisoning or at risk of poisoning by a clostridial toxin, comprising supplying a SNARE (soluble (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) to a cell of the patient, where the SNARE is resistant to proteolysis by the toxin (toxin-resistant CC SNARE) and/or is capable of inhibiting the toxin (toxin-inhibitory SNARE). The protein can be used in a method of treating a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of continuity snare to the cell of the patient. The toxin resistant or toxin inhibitory SNARE to the cell of the patient. The toxin resistant or toxin inhibitory SNARE or a medicament for the treatment of a patient suffering from cell of the patient. The toxin resistant or toxin inhibitory SNARE or a combinant polynucleotide encoding the SNARE is useful in the consoning or at risk of poisoning by clostridial toxin, e.g. from cell companies of these SNARE polypeptides are useful in the manufacture of sNARE or of these SNARE polypeptides are useful in the manufacture of dependent exocytosis. The method of treatment in need of inhibition of SNARE. Cell dependent exocytosis from a cell capable of performing SNARE-dependent contribution of treatment of a patient with the manufacture of alternating the symptoms when most severe and taking the patient out of critical state.
                                                                                                                                                                                                           Query Match
Best Local S
Matches 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Treating a patient suffering from poisoning or at risk of poisoning by a clostridial toxin, e.g. botulism, comprises administering a toxin-resistant or toxin-inhibitory SNARE -
                                                                                                                                                                                                                                                                                                                                                                  critical
                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 8; 130pp; English
                                                                                              156 IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 186
                                                                                                                                                                                                                                   Local Similarity
                                                                                                                            1 IIGNLRHMALDMGNEIDTQNRQIDRIMEKAD 31
                                                                                                                                                                                                                                                                                                               206 AA;
                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                  100.0%; Score 158; DB 22; 100.0%; Pred. No. 1.1e-15; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                      Length 206;
                                                                                                                                                                                                        Indels
                                                                                                                                                                                                        0;
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TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d que l1 L1 .78 SEA FILE=REGISTRY ABB=ON PLU=ON EANQRA|ANQRAT|NQRATK/SQSP

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FILE COVERS 1907 - 3 Dec 2002 VOL 137 ISS 23 FILE LAST UPDATED: 2 Dec 2002 (20021202/ED)

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ĽΪ	70	CEA	FILE-REGISTE	RY ARR=ON	1 brn=0;	N EANQRA ANQRAT NQRATK/SQSP
L2	44	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L1
L3	4704	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	BOTUL?
L4	20	SEA	FILE=CAPLUS	ABB=ON	PLU≕ON	L2 AND L3

THUS THUS DINGHINGTON

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L5 1235 SEA FILE=CAPLUS ABB=ON PLU=ON BONT?
L6 9 SEA FILE=CAPLUS ABB=ON PLU=ON L2 AND L5
L7 20 SEA FILE=CAPLUS ABB=ON PLU=ON L4 OR L6
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=> d ibib ab hitrn 17 1-20 "

L7 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2002:869489 CAPLUS

TITLE:

Recombinant light chains of botulinum

neurotoxins and light chain fusion proteins for use in

research and clinical therapy Smith, Leonard; Jensen, Melody

INVENTOR(S):
PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 99 pp., Cont.-in-part of U.S.

Ser. No. 910,186. CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE		APPLICATION N	Э.	DATE
US 2002168727 PRIORITY APPLN. INFO.	A1 :	20021114	US US US US US US US US	US 2001-11588 1993-123975 1999-133865P 1999-133866P 1999-133868P 1999-133869P 1999-133873P 2000-611419 2000-246774P 2001-910186 2001-311966P	Ρ.	20011106 19930921 19990512 19990512 19990512 19990512 19990512 19990512 20000706 20001106 20010720 20010809

Botulinum neurotoxins, the most potent of all toxins, induce AB lethal neuromuscular paralysis by inhibiting exocytosis at the neuromuscular junction. The light chains (LC) of these dichain neurotoxins are a new class of zinc-endopeptidases that specifically cleave the synaptosomal proteins, SNAP-25, VAMP, or syntaxin at discrete sites. The present invention relates to the construction, expression, purifn., and use of synthetic or recombinant botulinum neutoroxin genes. For example, a synthetic gene for the LC of the botulinum neurotoxin serotype A (BoNT/A) was constructed and overexpressed in Escherichia coli. The gene product was purified from inclusion bodies. The methods of the invention can provide 1.1 g of the LC per L of culture. The LC product was stable in soln. at 4.degree. C. for at least 6 mo. This rBoNT/A LC was proteolytically active, specifically cleaving the Glu-Arg bond in a 17-residue synthetic peptide of SNAP-25, the reported cleavage site of ${\tt BoNT/A}$. Its calcd. catalytic efficiency k"ub.degree.cat sub.degree./K"ub.degree.m sub.degree.was higher than that reported for the native BoNT/A dichain. Treating the rBoNT/A LC with mercuric compds. completely abolished its activity, most probably by modifying the cysteine-164 residue located in the vicinity of the active site. About 70% activity of the LC was restored by adding Zn"up.degree.2+"up.degree. to a zn"up.degree.2+"up.degree. -free, apo-LC prepn. The LC was nontoxic to mice and failed to elicit neutralizing epitope(s) when the animals were vaccinated with this protein. In addn., injecting rBoNT/A LC into sea urchin eggs inhibited exocytosis-dependent plasma membrane resealing.

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Page 3

ΙT INDEXING IN PROGRESS

IT 216568-37-5

RL: BSU (Biological study, unclassified); BIOL (Biological study) (peptide sybstrate; recombinant light chains of botulinum neurotoxins and light chain fusion proteins for use in research and clin. therapy)

ΙT 188592-00-9

RL: PRP (Properties)

(unclaimed sequence; recombinant light chains of botulinum neurotoxins and light chain fusion proteins for use in research and clin. therapy)

ANSWER 2 OF 20 CAPLUS COPYRIGHT 2002 ACS 1.7

ACCESSION NUMBER:

2002:595499 CAPLUS

DOCUMENT NUMBER:

137:145554

TITLE:

Methods of administering botulinum toxin

INVENTOR(S):

Walker, Patricia S.

PATENT ASSIGNEE(S):

Allergan Sales, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 33 pp., Cont.-in-part of U.S. Ser. No. 730,237.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
				•		
	US 2002107199	A1	20020808		00 2002 0 0	20020117
	US 2002086036	A1	20020704		US 2000-730237	20001205
	RITY APPLN. INFO.	:	,3		2000-730237 A2	
AB	Methods for trea	ting c	onditions in	an	animal or human	subject are
	disclosed. The	condit	ions may be	pai	n, skeletal muscl	e conditions, smooth
	muscle condition	ıs, gla	ndular condi	tio	ns and cosmetic c	onditions. The
	methods comprise	the s	tep of admin	ist	ering a Clostridi	um neurotoxin
	component or Clo	stridi	um neurotoxi	n c	omponent-encoding	DNA to the subject
	using a needlele	ss syr	inge.		: ₌	•
TT	120001-19-1				*	

439904-18-4 ΙT

RL: PRP (Properties)

(unclaimed sequence; administration of botulinum toxin)

ANSWER 3 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2002:505236 CAPLUS

DOCUMENT NUMBER:

137:83622

TITLE:

Methods for treating hyperhidrosis

INVENTOR(S): PATENT ASSIGNEE(S): Walker, Patricia S. Allergan Sales, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 29 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ----______ 20001205 US 2000-730237 20020704 US 2002086036 Αi US 2002-51952 20020117 A1 20020808 US 2002107199 US 2000-730237 A2 20001205 PRIORITY APPLN. INFO.: Methods for treating hyperhidrosis is disclosed herein. In one

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embodiment, the method includes a step of administering a neurotoxin to a skin area to alleviate excessive sweating. In another embodiment, the method employs a needleless injector to affect the administration of a neurotoxin, for example botulinum toxin type A.

439904-18-4 TT

RL: PRP (Properties)

(unclaimed sequence; methods for treating hyperhidrosis)

ANSWER 4 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2002:353597 CAPLUS

DOCUMENT NUMBER:

136:365216

TITLE:

Recombinant light chains of botulinum

neurotoxins and light chain fusion proteins for use in

research and clinical therapy

INVENTOR(S): PATENT ASSIGNEE(S): Smith, Leonard A.; Jensen, Melody

United States Army Medical Research and Material Command, USA

PCT Int. Appl., 166 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	PATENT NO.					DATE			A								
									_								
WO	2002	0367	58	A.	2	2002	0510		M	O 20	01-U	\$472	30	2001	1106		
	W:	AE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	NΖ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	ΤM,	TR,	TT,	ΤZ,	UA,
		UG,	UZ,	VN,	YU,	ZA,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM	
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	ΤZ,	ŪG,	ZW,	AT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG	
AU	2002	0288	87	Α	5	2002	0515		A	U 20	02-2	8887		2001	1106		
PRIORIT	Y APP	LN.	INFO	. :				•	US 2	000-	2467	74P	P	2000	1106		
									US ´2	001-	9101	86	Α	2001	0720		
									US 2	001-	3119	66P	P	2001	0809		
									WO 2	001-	US47	230	W	2001	1106		

Botulinum neurotoxins, the most potent of all toxins, induce AB lethal neuromuscular paralysis by inhibiting exocytosis at the neuromuscular junction. The light chains (LC) of these dichain neurotoxins are a new class of zinc-endopeptidases that specifically cleave the synaptosomal proteins, SNAP-25, VAMP, or syntaxin at discrete sites. The present invention relates to the construction, expression, purifn., and use of synthetic or recombinant botulinum neurotoxin genes. For example, a synthetic gene for the LC of the botulinum neurotoxin serotype A (BoNT/A) was constructed and overexpressed in Escherichia coli. The gene product was purified from inclusion bodies. The methods of the invention can provide $1.1\ \mathrm{g}$ of the LC per L of culture. The LC product was stable in soln. at 4.degree. for at least 6 mo. This rBoNT/A LC was proteolytically active, specifically cleaving the Glu-Arg bond in a 17-residue synthetic peptide of SNAP-25, the reported cleavage site of BoNT/A. Its calcd. catalytic efficiency kcat/Km was higher than that reported for the native BONT/A dichain. Treating the rBoNT/A LC with mercuric compds. completely abolished its activity, most probably by modifying the cysteine-164 residue located in the vicinity of the active site. About 70% activity of the LC was restored by adding Zn2+-free, apo-LC prepn.

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Shah PCT/US02/27145 Page 5

The LC was nontoxic to mice and failed to elicit neutralizing epitope(s) when the animals were vaccinated with this protein. In addn., injecting rBoNT/A LC into sea urchin eggs inhibited exocytosis-dependent plasma membrane resealing.

IT 216568-37-5

RL: BSU (Biological study, unclassified); BIOL (Biological study) (peptide sybstrate; recombinant light chains of botulinum neurotoxins and light chain fusion proteins for use in research and clin. therapy)

188592-00-9 TΤ

RL: PRP (Properties)

(unclaimed sequence; recombinant light chains of botulinum neurotoxins and light chain fusion proteins for use in research and clin. therapy)

ANSWER 5 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: DOCUMENT NUMBER:

2002:286211 CAPLUS 136:290338

TITLE:

Peptides that mimic the carboxy-terminal domain of SNAP-25 block acetylcholine release at an Aplysia synapse. [Erratum to document cited in CA132:304502]

AUTHOR(S):

Apland, J. P.; Biser, J. A.; Adler, M.; Ferrer-Montiel, A. V.; Montal, M.; Canaves, J. M.;

Filbert, M. G.

CORPORATE SOURCE:

Neurotoxicology Branch, US Army Medical Research

Institue of Chemical Defense, Aberdeen Proving Ground,

MD, 21010-5400, USA

SOURCE:

Journal of Applied Toxicology (2000), 20(6), 499

CODEN: JJATDK; ISSN: 0260-437X

PUBLISHER:

John Wiley & Sons Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English .

The cor. author information is given. AB

169265-36-5 196928-77-5

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (peptides mimicking carboxy-terminal domain of SNAP-25 block acetylcholine release at Aplysia synapse (Erratum))

ANSWER 6 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2002:241093 CAPLUS

DOCUMENT NUMBER:

136:274685

TITLE:

Fluorescent substrates and high throughput assays for

proteotytic activities of clostridial neurotoxins

INVENTOR(S):

Schmidt, James J.; Stafford, Robert G.

PATENT ASSIGNEE(S):

U.S. Medical Research Institute of Infectious

Diseases, USA

SOURCE:

PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

1

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND					DATE			A	PPLI	CATI	ои ис	ο.	DATE					
								_										
WO 2002	20252	8 4	A:	2	2002	0328		W	O 20	01-U	S301	88	2001	0925				
W:	AL,	AM,	AT,	ΑU,	AZ,	ΒA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,		
					GB,													
	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	ſΨŴ,	ĭΫΪΧ,	NO,		
	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	UA,		
	UG,	US,	UZ,	VN,	YU,	ZW,	ΑM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM			

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG PRIORITY APPLN. INFO.:

US 2000-235050P P 20000925
```

AB In this application is described substrates for high-throughput assays of clostridial neurotoxin proteolytic activities. Two types of substrates are described: (1) modified peptides or proteins that can serve as FRET substrates and (2) modified peptides or proteins that can serve as immobilized substrates. In both types a fluorescent mol. is present in the substrate, eliminating the requirement for the addn. of a fluorigenic reagent. The assays described can be readily adapted for use in automated or robotic systems.

IT 405665-86-3 406458-86-4

RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)

(fluorescent substrates and high throughput assays for proteotytic activities of clostridial neurotoxins)

L7 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2001:618890 CAPLUS

DOCUMENT NUMBER:

136:50089

TITLE:

High-throughput assays for botulinum

neurotoxin proteolytic activity: Serotypes A, B, D,

and F

AUTHOR(S):

Schmidt, James J.; Stafford, Robert G.; Millard,

Charles B.

CORPORATE SOURCE:

Department of Cell Biology and Biochemistry,

Toxicology and Aerobiology Division, U.S. Army Medical

Research Institute of Infectious Diseases, Fort

Detrick, MD, 21702-5011, USA

SOURCE:

Analytical Biochemistry (2001), 296(1), 130-137

CODEN: ANBCA2; ISSN: 0003-2697

PUBLISHER:

Academic Press

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Botulinum neurotoxins (BoNT) are zinc metalloproteases that cleave and inactivate cellular proteins essential for neurotransmitter release. Because the paralytic effect of BONT is a consequence of its enzymic activity, selective inhibitors may be useful as drugs or as tools for further research. To expedite inhibitor discovery, the authors developed high-throughput, solid-phase protease activity assays for four of the seven BoNT serotypes: A, B, D, and F. Each assay consisted of a cleavable oligopeptide, based on the natural substrate sequence, labeled with fluorescein and covalently attached to maleimide-activated multiwell plates. Solns. of holotoxin or nontoxic catalytic domain of BoNT were incubated in substrate-coated wells, with or without test compds., followed by transfer and assay of solubilized product in a multiwell fluorometer. Routine toxin concns. ranged from 10 to 100 ng/mL, but concns. as low as 2 ng/mL gave reproducible signals. The fluorescence assays were selective, gave very low background readings, and were stable upon prolonged storage. Using the nontoxic catalytic domain of BONT A, the authors detd. the relative inhibitory potencies of a family of structurally related pseudotripeptide compds. Unlike previous methods, the authors' assays did not employ antibodies or reverse-phase extn. steps, only well-to-well transfers, and were easily adapted to a high-throughput automated environment. (c) 2001 Academic Press. 381670-91-3D, immobilized; fluorescein labeled

IT 381670-91-3D, immobilized; fluorescein labeled
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(substrate; high-throughput solid-phase fluorometric assays for
metalloproteinase activities of botulinum neurotoxins A, B, D

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and F and inhibitory potencies of pseudotripeptides with

botulin A)

THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS 36 REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2002 ACS

2001:185784 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 134:232968

Protease-resistant SNARE mutants and the uses thereof TITLE:

in rescue of cellular exocytosis for clostridial

neurotoxin-poisoned patients

INVENTOR(S): Dolly, James Oliver; O'Sullivan, Gregory A.; Mohammed,

Nadiem; Foran, Patrick G.

Imperial College Innovations Limited, UK PATENT ASSIGNEE(S):

PCT Int. Appl., 131 pp. SOURCE: CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	rent	NO.		KI	ND	DATE			Α	PPLI	CATI	ON NO	0.	DATE			
					_	2001			W	0 20	00-G	B319	6	2000	0818		
WO		ΑE,	AG,	AL,	AM,	AT,	AU,										
		HU,	ID,	IL,	IN,	DK, IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,
						MG, SK,											
	RW:	,				AZ, MW,								AT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR, GA,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,			
EP	1210	444		A	2	2002	0605		Ε	P 20	00-9	5665	2 · ·	2000			
	R:					DK, FI,					IT,	LI,	LU,	ΝL,	SE,	MC,	PT,
RITY	Y APP	,		•	•	-,	- •	·	US 1	999-	1499			1999			

PRIOR W 20000818 WO 2000-GB3196

A method of treating a patient suffering from poisoning by clostridial AB toxin wherein a SNARE (sol. (N-ethylmaleimide-sensitive fusion protein)-attachment protein receptor) that is resistant to proteolysis by the said clostridial toxin (toxin-resistant SNARE) and/or is capable of inhibiting the clostridial toxin is supplied to a cell of the patient. The SNARE that is resistant to proteolysis may be, synaptosomal-assocd. polypeptide of 25 kDA (SNAP-25). The SNAP-25 is preferably resistant to proteolysis by BoNT/A, BoNT/E and BoNT/C. A method of treating a patient in need of inhibition of SNARE-dependent exocytosis from a cell capable of performing SNARE-dependent exocytosis wherein a deriv. (inhibitory SNARE) that is capable of inhibiting SNARE-dependent exocytosis is supplied to the said cell of the patient. The inhibitory SNARE may be a fragment of SNAP-25 that is derivable by cleavage of SNAP-25 by botulinum toxin A (BoNT/A). The cell may be, for example, a nerve cell, adreno-chromaffin cell or insulin-secreting cell. The SNARE may be supplied to the cell by expressing recombinant polynucleotide construct. The SNARE or construct may be targeted to a nerve cell, by means of an inactive clostridial neurotoxin. The SNARE may be expressed under the target cell-specific

126880-89-5, Protein SNAP 25 (mouse clone p8.52/p8.51 TT synaptosome-associated reduced) 154768-88-4 329758-74-9

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329764-57-0
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RL: PRP (Properties)

(unclaimed protein sequence; protease-resistant SNARE mutants and the uses thereof in rescue of cellular exocytosis for clostridial neurotoxin-poisoned patients)

L7 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:7597 CAPLUS

DOCUMENT NUMBER: 134:91082

TITLE: Peptide inhibitors of neurotransmitter secretion by

neuronal cells

INVENTOR(S): Montal, Mauricio; Canaves, Jaume M.; Ferrer-Monteil,

Antonio V.

PATENT ASSIGNEE(S): The Regents of the University of California, USA

SOURCE: U.S., 23 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

TΤ

PATENT NO. KIND DATE APPLICATION NO. DATE

US 6169074 B1 20010102 US 1997-819286 19970318

PRIORITY APPLN. INFO.: US 1996-13599P P 19960318

The invention consists of peptides which inhibit the secretion of neurotransmitters from synaptic vesicles. The peptides of the invention are believed to mimic the activity of neurotoxins produced by Clostridium botulinum and tetani (including botulinum serotypes A, B, C, D, E, F and G). Structurally, the peptides are comprised of amino acid fragments from the substrate binding domains selected from three proteins which bind to form a receptor for docking of synaptic vesicles to the plasma membranes of neuronal cells; i.e., SNAP-25, VAMP-2 and syntaxin. Certain of the inventive peptides exhibit strong inhibitory activity; e.g., 50% or greater decline in neurotransmitter release is obtained at even nanomolar concns. The peptides are suited for use as

substitutes for Clostridium neurotoxins in clin. applications and in compds. for targeted delivery of drugs into neural cells.

169265-36-5 196928-77-5 197099-52-8 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Clostridium neurotoxin-mimicking peptide inhibitors of neurotransmitter secretion by neuronal cells)

IT 126880-89-5, Protein SNAP 25 (mouse clone p8.52/p8.51

synaptosome-associated reduced)

RL: PRP (Properties)

(unclaimed protein sequence; peptide inhibitors of neurotransmitter secretion by neuronal cells)

REFERENCE COUNT: 7 THE

7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:132673 CAPLUS

DOCUMENT NUMBER: 132:304502

TITLE: Peptides that mimic the carboxy-terminal domain of

SNAP-25 block acetylcholine release at an Aplysia

synapse

AUTHOR(S): Apland, J. P.; Biser, J. A.; Adler, M.;

Ferrer-Montiel, A. V.; Montal, M.; Filbert, M. G.

CORPORATE SOURCE: Neurotoxicology Branch, US Army Medical Research

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Institute of Chemical Defense, Aberdeen Proving

Ground, MD, 21010-5400, USA

Journal of Applied Toxicology (1999), 19(Suppl. 1), SOURCE:

S23-S26

CODEN: JJATDK; ISSN: 0260-437X

John Wiley & Sons Ltd. PUBLISHER:

DOCUMENT TYPE: Journal English LANGUAGE:

Botulinum neurotoxin serotypes A and E (BoNT/A and BoNT/E) block neurotransmitter release, presumably by cleaving SNAP-25, a protein involved in docking of synaptic vesicles with the presynaptic plasma membrane. Three excitation-secretion uncoupling peptides (ESUPs), which mimic the carboxy-terminal domain of SNAP-25 and span or adjoin the cleavage sites for BoNT/A and BoNT /E, also inhibit transmitter release from permeabilized bovine chromaffin cells. In this study, these peptides were tested for effects on acetylcholine (ACh) release at an identified cholinergic synapse in isolated buccal ganglia of Aplysia californica. The presynaptic neuron was stimulated elec. to elicit action potentials. The postsynaptic neuron was voltage-clamped, and evoked inhibitory postsynaptic currents (IPSCs) were recorded. The ESUPs were pressure-injected into the presynaptic neuron, and their effects on the amplitude of the IPSCs were studied. Acetylcholine release from presynaptic cells, as measured by IPSC amplitudes, was gradually inhibited by the ESUPs. All three peptides caused .apprx.40% redn. in IPSC amplitude in 2 h. Random-sequence peptides of the same amino acid compn. had no effect. Injection of BONT/E, in contrast, caused .apprx.50% redn. in IPSC amplitude in 30 min and almost complete inhibition in 2 h. These results are the first demonstration that ESUPs block neuronal cholinergic synaptic transmission. They are consistent with the concept that ESUPs compete with the intact SNAP-25 for binding with other fusion proteins, thus inhibiting

169265-36-5 196928-77-5 IΤ

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (peptides that mimic carboxy-terminal domain of SNAP-25 block acetylcholine release at Aplysia synapse)

REFERENCE COUNT:

THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS 16 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 11 OF 20 CAPLUS COPYRIGHT 2002 ACS

1999:655992 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 131:268976

TITLE:

Assay for the proteolytic activity of botulin neurotoxin type A from Clostridium botulinum , substrate requirements and activation by serum

albumin

stimulus-evoked exocytosis of neurotransmitter.

INVENTOR(S): PATENT ASSIGNEE(S):

Schmidt, James J.; Bostian, Karen A. United States Dept. of the Army, USA

SOURCE:

U.S., 28 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. ----_____ _____ US 5965699 A 19991012 US 1996-743894 19961106 A label-based assay is described, through modifications of poptido ĀB substrate structure and derivatization of serum albumin, which can be used to det. proteolytic activity of botulin neurotoxin A (botox A)

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without sepn. of products. The present invention provides a method for screening compds. for botox A inhibitory or stimulatory activity. Substrate requirements for botox A were also studied.

ΙT 245360-92-3 245360-93-4 245360-95-6 245360-96-7 245360-97-8 245360-98-9 245360-99-0-245361-00-6-245361-01-7-

245361-02-8 245361-03-9 245361-04-0 245361-05-1 245361-09-5 245361-11-9 245361-13-1 245361-16-4 245361-18-6

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (assay for proteolytic activity of botulin neurotoxin A from Clostridium botulinum, substrate requirements and activation by serum albumin)

TT 188591-98-2 188591-99-3 188592-01-0 188592-02-1 188592-03-2 188592-04-3 188592-05-4 188592-16-7 188592-17-8 188592-18-9 245361-21-1

> RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(assay for proteolytic activity of botulin neurotoxin A from Clostridium botulinum, substrate requirements and activation by serum albumin)

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 12 OF 20 CAPLUS COPYRIGHT 2002 ACS L7 1999:636059 CAPLUS ACCESSION NUMBER:

131:268231 DOCUMENT NUMBER:

TITLE: Antibody-based assay for botulinum and

tetanus neurotoxins

Shone, Clifford Charles; Hallis, Bassam; James, INVENTOR(S):

Benjamin Arthur Frederick; Quinn, Conrad Padraig

Microbiological Research Authority, UK PATENT ASSIGNEE(S): U.S., 21 pp., Cont.-in-part of Appl. No. SOURCE:

PCT/GB95/01279. CODEN: USXXAM

Patent DOCUMENT TYPE: English LANGUAGE:

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:	English 2		
PATENT NO. K	CIND DATE	APPLICATION NO. DATE	
	A1 19951214	US 1996-760001 19961203 WO 1995-GB1279 19950602	
•		FR, GB, GR, IE, IT, LU, MC, NL, PT US 1998-15960 19980130	S, SE
US 6337386 PRIORITY APPLN. INFO.:	B1 20020108	US 2000-534572 20000327 GB 1994-11138 A 19940603 WO 1995-GB1279 A2 19950602	
		US 1998-15960 A1 19980130	

The invention provides an antibody-based assay for toxins having peptidase AB activity, and in particular, this invention relates to assays for botulinum and tetanus neurotoxins. The invention comprises the steps of: (a) combining a test compd. with a substrate and with antibody, wherein the substrate has a cleavage site for the toxin and when cleaved by toxin forms a product, and wherein the antibody binds to the product but not to the substrate; and (b) testing for the presence of antibody bound to the product, which product is attached to a solid phase assay

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component. Preferably, the substrate is a peptide or a protein which is cleaved by the toxin to generate new peptides have N- and C-terminal ends. In addn., the target peptide is preferably selected from the group VAMP, SNAP-25, and syntaxin, and it may also be from analogs, isoforms, and/or fragments thereof. Furthermore, the assay is capable of distinguishing between active and inactive toxin present within the sample, since inactive toxin will have reduced or no activity.

IT 173080-83-6

RL: PRP (Properties)

(unclaimed protein sequence; antibody-based assay for **botulinum** and tetanus neurotoxins)

REFERENCE COUNT:

8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1998:630583 CAPLUS

DOCUMENT NUMBER:

130:21584

TITLE:

The 26-mer peptide released from SNAP-25 cleavage by

botulinum neurotoxin E inhibits vesicle

docking

AUTHOR(S):

Ferrer-Montiel, Antonio V.; Gutierrez, Luis M.; Apland, James P.; Canaves, Jaume M.; Gil, Anabel; Viniegra, Salvador; Biser, Jennifer A.; Adler,

Michael; Montal, Mauricio

CORPORATE SOURCE:

Department of Biology, University of California San

Diego, La Jolla, CA, 92093-0366, USA FEBS Letters (1998), 435(1), 84-88

CODEN: FEBLAL; ISSN: 0014-5793

SOURCE:

Elsevier Science B.V.

PUBLISHER:
DOCUMENT TYPE:

Journal English

DOCUMENT TIP

LANGUAGE: English
AB Botulinum neurotoxin E (BoNT E) cleaves SNAP-25 at the

C-terminal domain releasing a 26-mer peptide. This peptide product may act as an excitation-secretion uncoupling peptide (ESUP) to inhibit vesicle fusion and thus contribute to the efficacy of BONT E in disabling neurosecretion. We have addressed this question using a synthetic 26-mer peptide which mimics the amino acid sequence of the naturally released peptide, and is hereafter denoted as ESUP E. This synthetic peptide is a potent inhibitor of Ca2+-evoked exocytosis in permeabilized chromaffin cells and reduces neurotransmitter release from identified cholinergic synapses in in vitro buccal ganglia of Aplysia californica. In chromaffin cells, both ESUP E and BONT E abrogate the slow component of secretion without affecting the fast, Ca2+-mediated fusion event. Anal. of immunoppts. of the synaptic ternary complex involving SNAP-25, VAMP and syntaxin demonstrates that ESUP E interferes with the assembly of the docking complex. Thus, the efficacy of BoNTs as inhibitors of neurosecretion may arise from the synergistic action of cleaving the substrate and releasing peptide products that disable the fusion process by blocking specific steps of the exocytotic cascade.

IT 196928-77-5

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(SNAP-25 peptide ESUP E; 26-mer peptide released from SNAP-25 cleavage by **botulinum** neurotoxin E which inhibits synaptic vesicle docking)

REFERENCE COUNT:

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2002 ACS

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ACCESSION NUMBER:

1998:630507 CAPLUS

DOCUMENT NUMBER:

130:34875

TITLE:

Type A botulinum neurotoxin proteolytic

activity: development of competitive inhibitors and implications for substrate specificity at the S1'

AUTHOR(S):

Schmidt, James J.; Stafford, Robert G.; Bostian, Karen

CORPORATE SOURCE:

Toxinology Division, United States Army Medical Research Institute of Infectious Diseases, Fort

Detrick, MD, 21702-5011, USA

SOURCE:

FEBS Letters (1998), 435(1), 61-64 CODEN: FEBLAL; ISSN: 0014-5793

PUBLISHER:

Elsevier Science B.V.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Type A botulinum neurotoxin (botox A) is a zinc metalloprotease that cleaves only one peptide bond in the synaptosomal protein, SNAP-25. Single-residue changes in a 17-residue substrate peptide were used to develop the first specific, competitive inhibitors of its proteolytic activity. Substrate analog peptides with P4, P3, P2' or P3' cysteine were readily hydrolyzed by the toxin, but those with P1 or P2 cysteine were not cleaved and were inhibitors. Peptides with either D- or L-cysteine as the N-terminus, followed by the last six residues of the substrate, were the most effective inhibitors, each with a Ki value of 2 .mu.M. Elimination of the cysteine sulfhydryl group yielded much less effective inhibitors, suggesting that inhibition was primarily due to binding of the active-site zinc by the sulfhydryl group. Botox A displayed an unusual requirement for arginine as the P1' inhibitor residue, demonstrating that the S1' binding subsite of botox A is dissimilar to those of most other zinc metalloproteases. This characteristic is an important element in shaping the substrate specificity of botox A.

216568-37-5 216568-38-6 216568-39-7 TT 216568-46-6

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(inhibitors and substrates of botox A, a type A botulinum

neurotoxin with proteolytic activity)

REFERENCE COUNT:

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS 20 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 15 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:640559 CAPLUS 127:298730

DOCUMENT NUMBER: TITLE:

Peptide neurotoxin analog inhibitors of

neurotransmitter secretion by neuronal cells for

neural targeting of drugs

INVENTOR(S):

Montal, Mauricio

PATENT ASSIGNEE(S):

Regents of the University of California, USA

PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. _____ _____ WO 9734620 A1 19970925 WO 1997 US4393 19970318

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,

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LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9723348 A1 19971010

PRIORITY APPLN. INFO.:

AU 1997-23348 19970318 US 1996-13599P P 19960318 W 19970318 WO 1997-US4393

The invention consists of peptides which inhibit the secretion of neurotransmitters from synaptic vesicles. The peptides of the invention are believed to mimic the activity of neurotoxins produced by Clostridium botulinum and C. tetani (including botulinum serotypes A, B, C, D, E, F and G). Structurally, the peptides are comprised of amino acid fragments from the substrate binding domains selected from three proteins which bind to form a receptor for docking of synaptic vesicles to the plasma membranes of neuronal cells; i.e., SNAP-25, VAMP-2 and syntaxin. Certain of the inventive peptides exhibit strong inhibitory activity; e.g. 50 % or greater decline in neurotransmitter release is obtained at even nanomolar concns. The peptides are suited for use as substitutes for Clostridium neurotoxins in clin. applications and in compds. for targeted delivery of drugs into neural cells.

169265-36-5 196928-77-5 197099-52-8

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (peptide neurotoxin analog inhibitors of neurotransmitter secretion by neuronal cells for neural targeting of drugs)

ANSWER 16 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1997:527491 CAPLUS

DOCUMENT NUMBER:

127:188490

TITLE:

Blockade of ACh release at a synapse in Aplysia by a peptide that mimics the carboxy-terminal domain of

& SNAP-25

AUTHOR(S):

Apland, J. P.; Filbert, M. G.; Adler, M.;

CORPORATE SOURCE:

Ferrer-Montiel, A. V.; Montal, M. Neurotoxicology Branch, U. S. Army Medical Research

Institute Chemical Defense, Aberdeen Proving Ground,

MD, 21010-5425, USA

SOURCE:

Medical Defense Bioscience Review, Proceedings, Baltimore, May 12-16, 1996 (1996), Volume 3,

1434-1439. National Technical Information Service:

Springfield, Va. CODEN: 64UTAN

DOCUMENT TYPE:

Conference

LANGUAGE:

English

Neurotransmitter exocytosis is preceded by docking of synaptic vesicles at release sites on the presynaptic membrane. SNAP-25 (synaptosomal-assocd. membrane protein of 25 kDa) is one of several proteins forming the fusion complex at the release sites. Botulinum neurotoxins A and E block neurotransmitter release by cleaving SNAP-25. The SNAP-25 C-terminal 20-amino acid peptide (named ESUP, for excitation-secretion uncoupling peptide) was recently shown by L.M. Gutierrez, et al. (1995) to inhibit transmitter release from permeabilized bovine chromaffin cells. The effect of this peptide on ACh release at an identified cholinergic synapse of Aplysia neurons was investigated in preliminary expts. in the authors' lab. Recordings were obtained from isolated buccal ganglia of Aplysia. The presynaptic neuron was current-clamped and stimulated elec. at 0.017 Hz or 0.1 Hz to elicit action potentials. The postsynaptic neuron was voltage-clamped, and evoked inhibitory postsynaptic currents

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(IPSCs) were recorded. ESUP was pressure-injected into the presynaptic neuron, and its effect on the amplitude of the IPSCs was studied. ACh release from presynaptic cells, as measured by the amplitudes of IPSCs, was consistently inhibited. The inhibition was gradual, requiring 1-3 h to effect a 50-60% redn. of IPSC amplitude. A random-sequence peptide of the same amino acid compn. had no effect. Apparently, ESUP competes with the intact SNAP-25 for binding with other fusion proteins, thus inhibiting exocytosis of neurotransmitter. This effect may account, in part, for botulinum toxin-induced inhibition of transmitter release.

IT 169265-36-5, Excitation-secretion uncoupling peptide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(blockade of acetylcholine release at synapse in Aplysia by peptide that mimics C-terminal domain of SNAP-25)

L7 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:152896 CAPLUS

DOCUMENT NUMBER: 126:235112

TITLE: Endoproteinase activity of type A botulinum

neurotoxin: substrate requirements and activation by

serum albumin

AUTHOR(S): Schmidt, James J.; Bostian, Karen A.

CORPORATE SOURCE: Toxinology Division, U.S. Army Medical Res. Institute

Infectious Diseases, Frederidck, MD, 21702-5011, USA

SOURCE: Journal of Protein Chemistry (1997), 16(1), 19-26

CODEN: JPCHD2; ISSN: 0277-8033

PUBLISHER: Plenum
DOCUMENT TYPE: Journal
LANGUAGE: English

Type A botulinum neurotoxin, a zinc-dependent endoproteinase that selectively cleaves the neuronal protein SNAP-25, can also cleave relatively short peptides. We found that bovine and other serum albumins stimulated the type A-catalyzed hydrolysis of synthetic peptide substrates, through a direct effect on the kinetic consts. of the reaction. Furthermore, with bovine serum albumin in the assays, the optimum substrate size was 16 residues (11 on the amino-terminal side of the cleavage site and 5 on the carboxy-terminal side). To further investigate the catalytic requirements of the neurotoxin, peptides were synthesized with various amino acid substitutions at the P5 through P5' substrate sites. Changes at all of these locations affected values for both kcat and Km. Substitutions at the P2, P1', and P2' sites had more pronounced effects on hydrolysis rates than did substitutions at the Pl site. Enzyme-substrate interactions at the P3' threonine probably involved the side-chain Me group rather than the hydroxyl group. Replacing the P2' alanine with leucine eliminated detectable hydrolysis, but not binding, since this peptide was an inhibitor. A neg. charged residue was preferred at P5, but not at P4. The data indicate that type A botulinum neurotoxin has an extended substrate recognition region and a requirement for arginine as the P1' residue.

IT 188591-98-2 188591-99-3 188592-00-9 188592-01-0 188592-02-1 188592-03-2 188592-04-3 188592-05-4 188592-16-7 188592-17-8 188592-18-9

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(endoproteinase activity of type A **botulinum** neurotoxin, substrate requirements and activation by serum albumin)

L/ ANSWER 18 OF 20 CAPLOS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:97334 CAPLUS

DOCUMENT NUMBER: 126:197791

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TITLE: A peptide that mimics the C-terminal sequence of

Shah

SNAP-25 inhibits secretory vesicle docking in

chromaffin cells

Gutierrez, Luis M.; Viniegra, Salvador; Rueda, AUTHOR (S):

Joaquin; Ferrer-Montiel, Antonio V.; Canaves, Jaume

M.; Montal, Mauricio

Instituto de Neurociencias and Facultad de Medicina, CORPORATE SOURCE:

> Universidad de Alicante, Alicante, 03080, Spain Journal of Biological Chemistry (1997), 272(5),

2634-2639

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular

Biology

Journal DOCUMENT TYPE: LANGUAGE: English

Excitation-secretion uncoupling peptides (ESUPs) are inhibitors of Ca2+-dependent exocytosis in neural and endocrine cells. Their mechanism of action, however, remains elusive. We report that ESUP-A, a 20-mer peptide patterned after the C terminus of SNAP-25 (synaptosomal assocd. protein of 25 kDa) and contg. the cleavage sequence for botulinum neurotoxin A (BoNT A), abrogates the slow, ATP-dependent component of the exocytotic pathway, without affecting the fast, ATP-independent, Ca2+-mediated fusion event. Ultrastructural anal. indicates that ESUP-A induces a drastic accumulation of dense-core vesicles near the plasma membrane, mimicking the effect of BONT A. Together, these findings argue in favor of the notion that ESUP-A inhibits ATP-primed exocytosis by blocking vesicle docking. Identification of blocking peptides which mimic sequences that bind to complementary partner domains on interacting proteins of the exocytotic machinery provides new pharmacol. tools to dissect the mol. and mechanistic details of neurosecretion. Our findings may assist in developing ESUPs as substitute drugs to BoNTs for the treatment of spasmodic disorders.

169265-36-5 ΙT

SOURCE:

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (amino acid sequence of; SNAP-25 C-terminal sequence-like peptide ESUP-A inhibits ATP-dependent secretory vesicle docking in bovine adrenal chromaffin cells)

ANSWER 19 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:87093 CAPLUS

DOCUMENT NUMBER: 124:109558

TITLE: Toxin assay INVENTOR(S):

Shone, Clifford Charles; Hallis, Bassam; James, Benjamin Arthur Frederick; Quinn, Conrad Padraig

Microbiological Research Authority, UK PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2

Patent DOCUMENT TYPE:

English LANGUAGE:

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE _____ _____ WO 1995-GB1279 19950602 WO 9533850 A1 19951214

W: AU, CA, JP, US

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, FT, SE A1 19960104 AU 1995-26240 19950602 AU 9526240

AU 687564 B2 19980226



AB A toxin assay that uses a substrate for cleavage by the toxin and antibodies that do not recognize the substrate but recognize and bind to the product of cleavage of the substrate by the toxin. The substrate can be a nerve cell peptide when the assay is for **botulinum** toxin or tetanus toxin.

IT 173080-83-6

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (substrate; tetanus and botulinum toxin assay using peptide substrates and antibodies)

L7 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:19380 CAPLUS

DOCUMENT NUMBER:

124:167929

TITLE:

Proteolysis of synthetic peptides by type A

botulinum neurotoxin

AUTHOR(S):

Schmidt, James J.; Bostian, Karen A.

CORPORATE SOURCE:

U.S. Army Medical Res. Inst. of Infectious Diseases,

Fort Detrick, Frederick, MD, 21702-5011, USA

SOURCE:

Journal of Protein Chemistry (1995), 14(8), 703-8

CODEN: JPCHD2; ISSN: 0277-8033

PUBLISHER: Plenum
DOCUMENT TYPE: Journal
LANGUAGE: English

Type A botulinum neurotoxin catalyzed the hydrolysis of synthetic peptides based on the sequence of the 25 kDa synaptosomal protein SNAP-25. In each peptide, the toxin cleaved at a single glutaminyl-arginine bond corresponding to residues 197 and 198 of SNAP-25, confirming earlier reports on the enzymic specificity of the toxin in synaptosomal prepns. Metal chelators inhibited catalysis, consistent with a metalloprotease activity. In contrast to tetanus toxin and other botulinum toxin serotypes, type A toxin hydrolyzed relatively short, 17-to 20-residue peptides. In the substrates, SNAP-25 residue 202 and one or more of residues 197-191 were required for efficient hydrolysis, but residues 167-186 and 203-206 were not. The highest rates of hydrolysis were found when the C-terminal residues of the peptides were amidated.

TT 169265-36-5 172486-01-0 172486-02-1 172486-03-2 172486-04-3 172486-05-4

172486-06-5 173762-25-9

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(proteolysis of synthetic peptides by type A **botulinum** neurotoxin)

=> file home

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